

OUR
20th YEAR

BADGER STATE

Smoke Signals

For Radio Amateurs • By Radio Amateurs

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Vol. 20 No. 5 - 233rd Consecutive Monthly Issue - Baraboo, Wisconsin - May 1989

Meet Your Leaders



Here are, left to right, Richard R. Regent, K9GDF, Milwaukee, (Section Manager for the Wisconsin Section of the American Radio Relay League); Barb Regent, N9DIJ (Rich's wife); and Ed Metzger, W9PRN, of Springfield, IL, ARRL Central Division Director. Among Rich's many talents are cartooning (see below), and writing. He's had dozens of articles published here in BSSS, and wrote the emergency communications chapter in the ARRL's Operating Manual. If you have input for the ARRL Board of Directors, such as about the no-code proposal, contact Director Metzger at 1520 South 4th St., Springfield, IL 62703.

ARRL Committee Recommends No-Code License

A special committee appointed by American Radio Relay League President Larry E. Price, W4RA, has submitted a report recommending the creation of a class of Amateur Radio license not requiring a knowledge of Morse code.

The report was presented to the ARRL Executive Committee, which met on April 1; the Executive Committee did not take a position on the substance of the report, but authorized its publication in full in the May issue of *QST*, and referred it to the full Board of Directors for consideration during its July 21-22 meeting. ARRL members, other licensed radio amateurs, and others interested in Amateur Radio are invited to review the report and to make their views known to ARRL Division Directors.

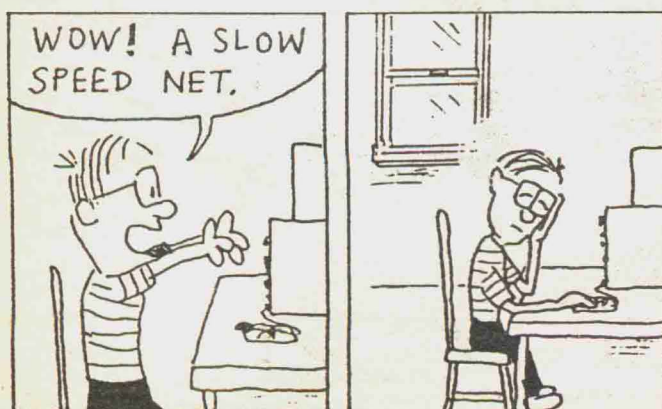
The mission of the committee was "to explore the implications of a no-code amateur license." To carry out this mission, President Price appointed a distinguished committee consisting of

(Please turn to page 8)

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ELMER



by Rich Regent, K9GDF



BADGER STATE SMOKE SIGNALS

Swapfests and other Social Events

MAY 6, 1989. The Ozaukee Radio Club, Inc. will sponsor its eleventh Annual Swapfest, at the Circle B Recreation Center, Highway 60, Cedarburg, WI. Sellers admitted at 7:00 a.m. and general admission at 8:00 a.m. Amateur License exams will be given between 8:00 a.m. and 10:30 a.m. by the Badger Examiners (see Testpoint). Admission is \$2.00 in advance or \$3.00 at the door. Four foot tables are \$2.00 each, in advance only. Food and refreshments will be available. For tickets, tables maps, or more information send business size SASE to ORC SWAPFEST, N4515 Crystal Springs Ct., Fredonia, WI 53021.

SATURDAY, MAY 13, 1989, the Lakeshore Hamfest, sponsored by the Mancorad Radio Club, will be held at the Manitowoc County Expo Center, intersection of Hwys. 42-141 and I-43 on County Hwy. "R", 8:00 a.m. (7:00 a.m. for vendors). Accommodations for vendor drive-in. Advance tickets: \$2.00, or \$3.00 at the door. Swap tables: \$3.00. FCC exams, refreshments, prizes. Talk-in on 146.61 and 147.03. Hamfest camping available. Contact: Mancorad Radio Club, P.O. box 204, Manitowoc, WI 54220. (See elsewhere this issue for ad with full details.)

JUNE 11, 1989. Six Meter Club of Chicago. Santa Fe Park, 91st and Wolf Road, Willow Springs, IL. Mike Corbett, K9ENZ, 606 S. Fenton Ave., Romeoville, IL 60441.

SATURDAY, JULY 8, 1989. South Milwaukee ARC Swapfest, Oak Creek, WI. Buy-Sell-Swap-Food-Drinks-Prizes-Camping. Amateur Radio Exams. "Happy Time". Tickets: \$4.00. (see ad on last page, and watch for full ad as date gets closer.)

SUNDAY JULY 8, 1989. Hamfest-Computer show held at Downers Grove, IL. DuPage ARC, P.O. Box 71, Clarendon Hills, IL 60514.

JULY 15, 1989. Annual Eau Claire Hamfest sponsored by the Eau Claire ARC. 8:00 a.m. to 2:00 p.m. at the 4-H buildings on Fairfax St. behind Highland Mall. Free tables for ham gear, free coffee, good food at good prices, door prizes, commercial exhibitors. Amateur license tests given from 9:00 am to 1:00 p.m. - all walk-ins. Admission tickets \$2.00. Contact Gene Lieberg, 2840 Saturn Ave., Eau Claire, WI 54703.

AUGUST 19, 1989. The 8th annual Green Fox A.R.C. Picnic/Auction starting at noon. (Rain r date August 20). Free food, drink and visiting. Prizes will include a gift certificate for two for a flight on the Hot Air Balloon "Wisconsin", which is based in Ripon, WI and officially represents the State. As always, there is no admission to this event. The proceeds of the auction pay for the costs incurred. Bring some pocket money to bid at the auction. For donations or more information, contact Jack Bremer, KB9WC, Route 1, Box 142, Markesan, WI 53946. (414) 398-2247

SUNDAY, SEPTEMBER 10, 1989. BARS Ham-Computerfest, Joliet, IL. Bolingbrook ARC, c/o Ed Weinstein, WD9AYR, 7511 Walnut Ave, Woodridge, IL 60517.

OCTOBER 15, 1989. The 11th Annual Fall Ham & Computer Swapfest, Waukesha, WI., Contact KMRA Swapfest, 313 Hillview Circle, Waukesha, WI 53188.

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas.

Send information on your event to Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and requirements for our advertising pages, please contact K9ZZ or K9EN.

Club Meetings

BADGER AMATEUR RADIO SOCIETY
(W9YT - UNIVERSITY OF WISCONSIN - MADISON)
Monthly while school in session - 2nd Wednesday - 7:30 p.m. - B-314, Electrical Engineering Building.

CENTRAL WISCONSIN RADIO AMATEURS, LTD.
(STEVENS POINT)
Second Wednesday.

EAU CLAIRE AMATEUR RADIO CLUB
2nd Tuesday - 7:30 p.m. - Parks and Recreation Bldg., Oxford and 1st Streets, Eau Claire. Hams, guests welcome. Travelers welcome on wide area club repeater K9UXP, 146.31/91.

FOUR LAKES AMATEUR RADIO CLUB (MADISON WI)
First and third Tuesdays - 7:30 p.m. - Red Cross Bldg., 4860 Sheboygan Ave.

FOX CITIES AMATEUR RADIO CLUB
Third Monday - 7:00 p.m. - Roosevelt Jr. High School, 318 E. Brewster St., Appleton. Info: (414) 735-6294.

GREEN BAY MIKE AND KEY CLUB
Second Thursday - Red Cross Bldg., corner Danz and Deckner, Green Bay.

GREEN FOX AMATEUR RADIO CLUB
Third Monday - 7:30 p.m. - Green Lake Town Hall, int. of county hwy. K and N.

KETTLE MORaine RADIO AMATEURS
Second Friday, 7:30 p.m. at the Kettle Moraine High School, located near the intersection Hwys 18 & 83 in Wale, WI.

LAKESHORE RPTR. ASSN.
Last Tuesday, Jan., Apr., Jul., & Oct., 7:30 p.m. Red Cross Bldg., 4521 Taylor Ave., Racine, WI.

MANITOWOC COUNTY RADIO AMATEURS
Board meeting, First Wednesday.
General meeting, Second Wednesday - both meetings held at 7:00 p.m. at the Red Cross Building, 1816 Washington St., Manitowoc.

MENOMONEE FALLS AMATEUR RADIO CLUB
Last Tuesday - Doors open 7:30 p.m., meeting begins 8:00 p.m. - Security Savings and Loan, Menomonee Falls. Amateurs and guests welcome.

MILWAUKEE RADIO AMATEURS CLUB
Fourth Thursday - Wauwatosa Savings and Loan, 7500 W. State St. (November on the third Thursday. No meetings in July, August and December.) Meetings begin at 7:00 pm.

Old Timers Party & Spring Get-Together on May 11, 1989 at Kuglitsch's, 16000 West Cleveland Ave. This party is OPEN TO ALL. \$10.00 per person. Contact MRAC, P.O. Box 91, Milwaukee, WI 53201.

OZAUKEE RADIO CLUB
Second Wednesday - 7:30 p.m. - Saukville Community Center.

BADGER STATE SMOKE SIGNALS

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SUBSCRIPTIONS

| | | |
|---------|-------------|---------|
| 1 year | (12 issues) | \$8.50 |
| 2 years | (24 issues) | \$16.00 |
| 3 years | (36 issues) | \$23.00 |

ADDRESS CHANGES AND CORRECTIONS should be sent to Kenneth A. Ebnetter, address above.

EDITORIAL MATERIAL, PHOTOGRAPHS, FEATURE ARTICLES, AND EXCHANGE PAPERS should be sent to Jim Romelfanger, address above.

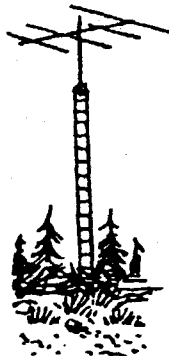
DISPLAY ADS or INQUIRIES REGARDING DISPLAY ADS may be directed to Harry Westlund or Kenneth Ebnetter, addresses above.

SUBSCRIPTIONS should be sent, with check or money order (do not send cash), to Jim Decker, address above.

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EDITORIAL DISCLAIMER

The opinions expressed in editorials, guest editorials, columns, articles, and letters are the opinions of the authors only, and do not, unless otherwise stated, express or imply agreement or endorsement by Badger State Smoke Signals, or by any other organization.



QCWA - WISCONSIN CHAPTER #55

For information about QCWA, contact Richard Regent, K9GDF. The Wisconsin Chapter holds Spring and Fall dinner meetings. Spring meeting: Saturday, June 10, 1989. Chalet in Wisconsin Rapids, WI. Make reservations with K9GDF. You are invited to check in the QCWA net on Sundays on 3.985 MHz. at 8:30 a.m.

QCWA - SOUTHEAST WISCONSIN CHAPTER #162

Meets third Monday monthly, 7:30 p.m., Around the Clock Restaurant, 3012 Rapids Drive, Racine.

RACINE MEGACYCLE CLUB

Second Monday, 7:30 p.m., Red Cross Bldg., 4521 Taylor Ave., Racine, WI

RIVERLAND AMATEUR RADIO CLUB

First Tuesday - 7:30 p.m. - Onalaska Community Center, Onalaska WI.

ROCK RIVER RADIO CLUB

First Tuesday - 7:30 p.m. CST, 8:00 p.m. CDT - Dodge County Sheriff's Dep't, 141 N. Main, Juneau WI. ARES net - 146.64 MHz., Monday 7:30 p.m. CST, 8:30 p.m. CDT. 7277 Khz., Saturday 10:30 a.m.

SHEBOYGAN COUNTY AMATEUR RADIO CLUB

Second Tuesday - 7:00 p.m. - Sheboygan Red Cross/Boy Scout Bldg., 2032 Erie Ave.

SOUTH MILWAUKEE AMATEUR RADIO CLUB

First Wednesday - Legion Post 434, Shepard Ave., Oak Creek WI. Auctions in March and October.

TRI-COUNTY AMATEUR RADIO CLUB

Second Sunday of each month. Meetings are held at 7:00 p.m., at the Trinity Lutheran Church, 314 Barrie, Fort Atkinson, WI.

WASHINGTON COUNTY AMATEUR RADIO CLUB

Second Tuesday: ARES/RACES - 7:30 p.m., club meeting - 8:00 p.m., Town of Polk Town Hall, Hwy. 60 and Scenic Dr. Net on 146.13/73 every Monday 7:30 p.m.

WATERTOWN AMATEUR RADIO CLUB

First Thursday of the month at 7:00 p.m., Eaton Corp., 901 s. 12th St., Watertown, WI

WEST ALLIS RADIO AMATEUR CLUB

Second Tuesday - 8:00 p.m. - St. Francis Savings, 9330 W. Greenfield Ave.

WISCONSIN ASSOCIATION OF REPEATERS

Meetings are held Quarterly, with time and location to be announced. Repeater licensees, trustees, and sponsors are urged to attend W.A.R. meetings. All interested parties are welcome.

WISCONSIN VALLEY RADIO ASSOCIATION (WAUSAU)

First Tuesday - 7:30 p.m. - Location varies; info on 146.04/64, Wausau.

YELLOW THUNDER AMATEUR RADIO CLUB (BARABOO)

Days rotate: 1989 meeting dates: Mon., May 15, Tue., Jun. 13, Wed., Jul. 19, Thu., Aug. 17, Mon., Sep. 18, Tue., Oct. 17, Wed., Nov. 15, Thu., Dec. 14, 1989. Monday meetings in room 288 of the Baraboo Civic Center; all others in room 25. Meetings start 7:30 p.m.

The TEST POINT



The following are known locations where Amateur Radio license examinations are scheduled in the Badger State area. (Underlined are added since last months BSSS.)

| | |
|--|--|
| May 3, 1989 | Milwaukee, WI (MRAC) |
| May 6, 1989 | Milwaukee, WI (BE) (Ozaukee Swapfest) |
| June 7, 1989 | Milwaukee, WI (MRAC) |
| June 17, 1989 | Menomonie, WI |
| June 18, 1989 | Stevens Point, WI |
| July 15, 1989 | Eau Claire WI |
| September 16, 1989 | Milwaukee, WI (BE) |
| October 14, 1989 | Eau Claire WI |
| November 11, 1989 | Menomonie, WI |
| December 2, 1989 | Stevens Point, WI |
| Monthly, First Sat. | Racine, WI |
| Monthly, Last Sun. | Tomahawk, WI |
| Monthly, Third Sat. | Loves Park, IL |
| Minnesota tests - (see last months BSSS) | |

GENERAL RULES FOR MOST EXAMINATIONS:

Be sure to check with sponsors in the event there are changes and/or errors in the dates or information given.

Most examinations require filing an FCC Form 610 and advance registration at least 30 days before the exam date. (Some VECs permit walk-ins. Check with sponsor.)

To register, you must first secure a copy of the current FCC Form 610 and fill it out completely (AND CORRECTLY). Get your form from an FCC Field Office, the ARRL or Badger State Smoke Signals. Send a 25¢ SASE if you request one from the ARRL or BSSS. In most cases, forms can also be obtained from the sponsoring group.

ARRL/VEC examinations require a check for \$4.75 payable to "ARRL/VEC".

The FCC now requires applicants to show their original Amateur license to the VEC. A copy of your license must be attached to your FCC form 610. You will also be required to have a photo ID, or other acceptable identification.

Technician class licensees must show proof of testing before March 21, 1987, in order to upgrade to General with a code test only.

Additional information is given below.

MILWAUKEE RADIO AMATEURS' CLUB - MRAC/VEC

May 3, 1989, and June 7, 1989

Tests are Wednesday evenings at 7:00 p.m. at Wauwatosa East High School, North 74th Street and Milwaukee Avenue. Enter through the southmost entrance on 74th Street. Go to room 256 on the second floor. Please arrive promptly so testing can be completed before 10:00 p.m. Bring your original license and three good photocopies, a pen, and \$4.55 for the exam fee. Walk-ins accommodated as time permits. Register in advance on a Postal Service 15 cent post card; print the grade of license you are applying for, and your name, address, and telephone number. Send the card to The Milwaukee Radio Amateurs' Club, Inc., 3840 South 43rd Street, #21, Milwaukee, WI 53220. For further information, contact Ed Seruga,

KE9JJ, Secretary, MRAC at the above address. Telephone: (414) 545-6299 or (414) 546-0647.

BADGER EXAMINERS (BE) - MILWAUKEE

1989 examination dates: May 6 (Ozaukee Swapfest), and September 16.

Unless otherwise noted, examinations are administered beginning at 1:00 p.m. at St. Nicholas Parish, 5353 N. Green Bay Ave. (2 1/2 blocks south of Silver Spring), Milwaukee. Number for coin telephone at exam location is 228-9994. Walk-ins are welcome. To register in advance, send a post card with your name, test or tests you wish to take, date you wish to be tested, your call sign, address and telephone number to Badger Examiners, Gary J. Sharbuno, WA9UJK, 5119 W. Willow Rd., Brown Deer, WI 53223.

EAU CLAIRE, WISCONSIN

1989 examination dates: July 15, October 14

The July exams will be given in association with the Eau Claire Hamfest at the 4-H Junior Fair Grounds. All other tests will be given in the Facilities Management building on the University of Wisconsin - Eau Claire campus. Exams are given from 9 a.m. until noon. All walk-ins accepted. For further information, call Carl Searing, W9NW, at 715/834-1303.

MENOMONIE, WI (ARRL/VEC)

June 17, November 11, 1989.

Sponsored by the Dunn County ARC. Walk-ins only. Credit Union Office Building, Conference Room, lower level, 444 S. Broadway, Menomonie, WI. Contact: Dr. Thomas W. King, KD9TI, c/o office, 444 S. Broadway, Suite 1, Menomonie, WI 54751. (715) 235-4747 (O), 235-5757 (H).

RACINE, WISCONSIN - ARRL/VEC

First Saturday of each month except during summer and the Christmas holidays.

Exams are given at the Red Cross Building, 4521 Taylor Ave., Racine, WI. Walk-ins are permitted.

Send pre-registration to: William R. Firchol, Jr., N9DMP, 1912 27th Street, Kenosha WI 53140.

Last Sunday of every month.

Tomahawk Volunteer Examiners (ARRL/VEC). Tomahawk, WI. No pre-registration required, but appointment would be appreciated. Registration at 8:30 a.m. and testings starts at 9:00 a.m. For location or other information, inquire on 145.43 MHz. repeater or contact: Greg Garner, WA9W, 4088 Highway 51, Harshaw, WI 54529. Telephone (715) 453-7096.

Third Saturday of every month.

Northern Illinois Volunteer Examiners (DeVry VEC). Held at North Suburban Library on North Second Street in Loves Park, IL. Contact: Gene Melton, AK9N, 2901 Billie Rd., Rockford, IL 61109, (815) 874-6867

This section of Badger State Smoke Signals is available to publicize your Volunteer Examiner Amateur Radio license examination schedules. Please send us your schedules of dates, times, and locations that you will be conducting examinations. Be sure to include contact address and any other necessary requirements.

Wisconsin Nets Association Ltd.

| WISCONSIN NETS | | | | | |
|----------------|-----|--------------------|------|------|---------|
| Net | WNA | Freq | UTC | CDT | Manager |
| BWN | Yes | 3984 | 1100 | 0600 | KC9CJ |
| BEN | Yes | 3985 | 1700 | 1200 | KA9RH |
| WSBN | Yes | 3985 | 2230 | 1730 | K9ANV |
| WNN | Yes | 3723 | 2300 | 1800 | KA9TTM |
| WSSN | Yes | 3645 | 2330 | 1830 | N9BDL |
| WIN/E | Yes | 3662 | 0000 | 1900 | WB9ICH |
| WIN/L | Yes | 3662 | 0300 | 2200 | W9NGP |
| NWTN | Yes | 34/94 | 2330 | 1830 | NS9Q |
| Gr. Bay | No | 72/12 | 0145 | 2045 | WB9NRK |
| | | | Thu. | Wed. | |
| RACES | No | 3993.5 | 1715 | 1215 | WC9AAG |
| | | USB Tues and Thurs | | | |
| RACES | No | 3993.5 | 1300 | 0800 | WA9OAY |
| | | LSB Sunday | | | |

Section Manager's notes

Richard R. Regent, K9GDF
5003 South 26th Street
Milwaukee, WI 53221

Milwaukee RAC exams on June 7th at Wauwatosa East High School, contact KE9JJ for details. MRAC has W9RH club station net control Fridays at 9 p.m. on 28.4 MHz.

June 10th Wisconsin Chapter 55 QCWA meets for a delicious dinner, delightful meeting, radio-museum slide show, and junk-box auction at Wisconsin Rapids' Chalet Motel Restaurant, social hour begins 11 a.m., guests and visitors are welcome.

Racine Megacycle Club congratulated WD9DSZ as Ham of the Year, will meet June 12th at 7:30 p.m. with program to include Emergency Government official Pete Jensen.

June 17th Dunn County ARC exams in Menomonie, KD9T for info.

June 18th, Central Wisconsin RA will hold its Swapfest and Family Picnic at Stevens Point's Bukolt Park including Wisconsin Nets Association meeting, contact N9JW if you plan to take an exam.

June 19th Wisconsin Chapter 162 QCWA meets for a show-and-tell meeting.

On June 24th and 25th Field Day, earn 100 bonus points for sending a proper message to either me or W9ZAG, Section Emergency Coordinator.

Sorry to report Silent Keys KA90GK and W9THN.

New officers Madison ARA: Pres. KB9AQQ; V. Pres. WB9YSD; Sec. N9DRA; and Treas. WD9HEX.

N9HAL new President of Watertown ARC.

W9NGT giving many club talks on tornado spotting.

Milwaukee ARES fixing up communications trailer, issuing photo ID cards and promoting new public service ideas.

New full featured repeater in Hayward area on 444.85 MHz is operated by N9EGE with 100 watts.

Namekagon Valley Wireless Association has started quarterly newsletter called "Wireless Communique."

KD9FC uses a computer to work at home.

N9BMK graduated from U.W. Eau Claire.

West Allis RAC is conducting newsletter article contest among club members to stimulate information exchange.

The more an item costs, the farther you have to send it for repairs.

From the Section Traffic Manager

Gerald Wallen, K9EP
2007 Sunrise Court
Beloit, WI 53511

As your new Section Traffic Manager, I want to express my gratitude for the good work that has been done in the past by the many dedicated traffic handlers that we have in our traffic nets. I hope to be able to maintain what we have and hopefully make improvements. Gene, K9UTQ, has done a remarkable job of organization and education during the ten years that he served as STM. It will be a challenge to me to just be able to maintain the tradition he has established. My first month in this new job went smoothly, with all the reports for January being submitted promptly.

On February 6, Ellen and I started on a vacation trip to Florida. We got only as far as Tifton, Georgia, where I suffered a stroke, and after a week of recovery in the local hospital I was flown to Rockford St. Anthony Medical Center for further treatment. After a couple of weeks, I was transferred to Rockford Memorial, where they have an excellent rehabilitation center. I really believe that I owe my speedy recovery and lack of residual effects to the prompt response of the paramedics in Tifton, where they had me on oxygen and I.V. within minutes of the occurrence.

After dismissal from the hospital, I returned to my home and began to put together the pieces and get the next end of month report ready. Thanks to the diligent efforts of Hale, W9CBE, I had all the necessary reports because he collected them and sent them to my packet mailbox.

I plan to spend a lot of effort attempting to integrate the packet system with our traffic networks. I see packet as a valuable enhancement to the NTS nets. There are many good operators who have packet stations and are willing to accept messages for delivery. Unfortunately, many of these packet operators do not participate in our traffic nets. We need to encourage liaison between NTS nets and packet BBS. One of the problems is that there are few opportunities for a new packet operator to learn how to originate and accept traffic. As a result of inexperience, sometimes packet messages may be delivered more than once, probably because the station taking the traffic from the BBS did not kill the message. If we can develop a better working relationship between our traffic nets and the packet system, I am sure we will see a considerable improvement in our ability to find outlets for traffic around the state.

The ARRL has recognized the value of the service to the NTS of the dedicated packet operator who maintains a BBS and exhibits support for

the ARRL National Traffic System. A service award is now available for these BBS operators who have provided NTS service for a period of one year. Please contact me with your recommendations for recipients of this award.

Glass Arm Report (Wisconsin Slow Speed Net)

Lee G. Andreas, N9BDL
Net Manager

Route 1, 7600 Highway D East
Lake Tomahawk, WI 54539-9500

The Wisconsin Slow Speed Net is moving along at an average pace. I won't define average when you consider that you can stand with one foot in a bucket of boiling water and the other foot in a bucket of ice water and on the "average" be comfortable. The statistics for the first quarter of the year show checkins at 577, traffic handled at 176 messages, and total elapsed time of the 90 nets at 1413 minutes.

To give an idea of the who and where of the net, here are the top 10 checkins for the past quarter by call sign, name and town where they live: W9NGP, Ed, of Oconomowoc, with 70 checkins; AG9G, Dwight, of Phillips, with 64; N9FVN, Paul, of Shullsburg, with 63; KA9YSK, Tommy, of Tomahawk, with 52; Adrian, KA9FVX, of Poplar, with 38; Jim, W9CXY, of Kenosha, with 37; Ralph, K9BED, of Milwaukee, with 27; KA9GOU, Paul, of Rhinelander, with 26; and NSOU, Mike, of Dubuque, Iowa, also with 26. If you are counting, that list in only 9; number 10 is listed in the masthead of this column, and had 86 checkins.

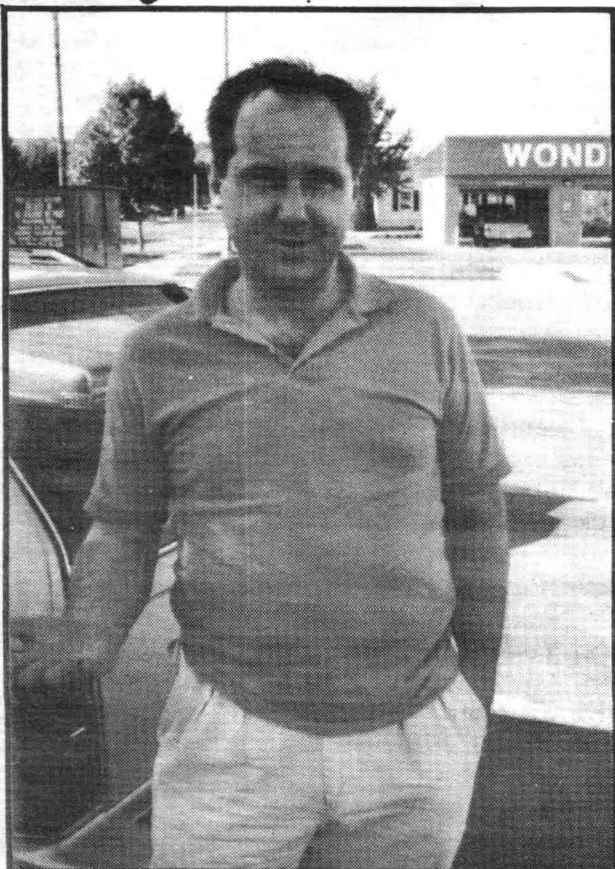
Band conditions have been less than desirable. Some Aurora Borealis activity has made communications a little rough some nights. The spring static season is also underway. The stalwarts of WSSN will be there, no matter what the band is doing. The only thing that slows them down is rig problems. NC9G, Art, of Park Falls, has been having more than his share of electronic problems with his transceiver. Hopefully, he will have them fixed by the time this gets into print.

When the band goes dead, this OM resorts to reading some old issues of QST. Much can be learned about those who inhabit the WNA nets. Did you know that K9GDF, our Section Manager, is a graduate of the University of Wisconsin at Stevens Point? I missed him by a few years when I taught there. (Lucky Rich.) Hale, W9CBE, used to be the net manager of the Central Area Net. Les, W9YCV, was the president of the radio club at Milwaukee School of Engineering, then took off for a while with the military during the Korean War. Rip, W9SIZ, used to work for radio station WMIL in Milwaukee in the late 40s and early 50s. (I wonder if he knew "Fritz the Plumber", a disc jockey who specialized in polka music.) W9CXY, Jim, was reported as a new call in Kenosha in June of 1949, and that he had a 35 w.p.m. proficiency certificate. Some things never change. What wasn't reported was that in June of '49, I had a crystal set with a tapped coil and an antenna on top of a four-story apartment building,

(continued on page 191)



HERE and THERE



John Jackson, N9BTM, above, was caught by K9ZZ's camera when he visited in Baraboo last year. John was first licensed in Baraboo as WA9IYW in the early 1960s. He is a computer technician in Arizona.

DX DINNER/PROGRAM - MAYBE: The Greater Milwaukee DX Association would like to know if you would be interested in a DX dinner and program, to be presented by Dave Schmock, KJ9L. The program would feature a slide and video show of the recent VK9ZM/ZW Mellish Reef/Willis Island DXpedition, where Dave was the 160 meter operator (see cover story in last month's issue of this paper). The GMDXA is looking at a May or June date. If you would like to attend such an event, please

drop a note or message to Ron Gorski, N9AU, 2330 West National Avenue, Milwaukee, WI 53204. Please pass this info along on your local VHF/UHF DX channels, too.

FCC-ISSUED CALL SIGN UPDATE: The following is a list of the FCC-issued Amateur Radio call signs, as of Feb. 1:

| Dist | Group A Extra | Group B Adv | Group C Tec/Gen | Group D Novice |
|------|---------------|-------------|-----------------|----------------|
| 0 | WR0E | KF0AS | N0KDL | KB0DXQ |
| 1 | NV1L | KC1NN | N1GGY | KA1TFB |
| 2 | WN2I | KE2LI | N2IYQ | KB2HDR |
| 3 | NT3O | KD3LH | N3GVC | KA3UDC |
| 4 | AB4MU | KM4NM | N4UWY | KC4IUS |
| 5 | AA5JZ | KG5RI | N5NVT | KB5IKW |
| 6 | AA6MO | KJ6QQ | N6UHQ | KC6BTW |
| 7 | WX7A | KF7RD | N7MFY | KB7GTC |
| 8 | WO8H | KE8WL | N8KIA | KB8GKZ |
| 9 | WF9L | KE9OM | N9IDA | KB9CBH |
| Guam | KH2K | AH2CE | KH2DN | WH2ALX |
| HI | ** | AH6JO | NH6SL | WH6CBV |
| AK | ** | AL7KT | NL7QK | WL7BTQ |
| USVI | NP2E | KP2BN | NP2CU | WP2AGN |
| PR | ** | KP4PV | WP4TO | WP4IHC |

** All 2 x 1 call signs have been assigned in these areas.

- The ARRL Letter

THE WISCONSIN QSO PARTY, held March 19, and sponsored by the West Allis Radio Amateur Club, saw band conditions that were poor at best. Your editor operated from Columbia County, and found 40 meters to be the only band usable during the afternoon; I understand 80 was productive later that day. I'm guessing that most scores will be down from last year. The official results will be published here in BSSS in June or July, and all entrants who submitted logs to WARAC will receive a copy of that issue.

THE MADISON SWAPFEST, sponsored by the Madison Area Repeater Association, looked to have a record crowd April 9; they ran out of admission tickets only an hour after the doors opened for general admission at 8 a.m.

The BSSS staff enjoyed seeing many of our readers from all over Wisconsin and

adjacent states; it was fun visiting with them. Two lucky folks who stopped by won indoor antennas from a BSSS advertiser, AntennasWest, of Provo, Utah.

THE BSSS NO-CODE SURVEY summary will be published in our next (June) issue. If you haven't filled out the form and sent it along to us, you still have time; we'd like to have them here before May 10.

Also in our next issue: the Wisconsin Repeater Directory, courtesy of the Wisconsin Association of Repeaters.

Special Event Station AE9K Nichols Observatory

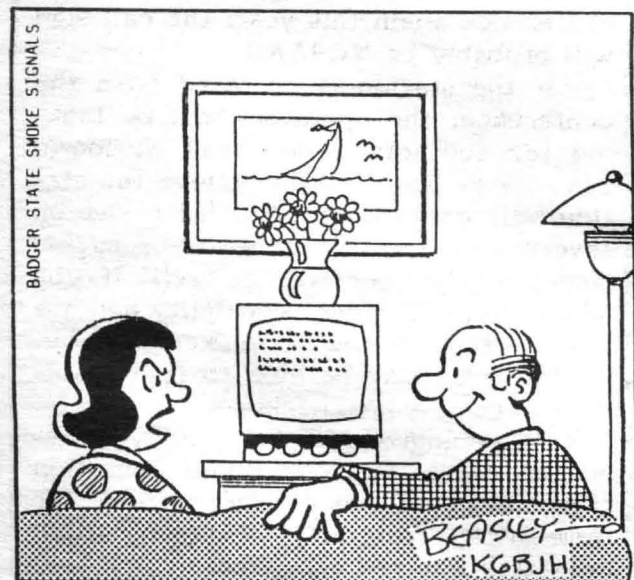
Members of the W/K Amateur Radio Club of Greater Milwaukee will set up and operate a special event station, AE9K, from the high vantage point of Nichols Observatory during National Astronomy Day, May 13, 1989, between 8:00 a.m. and midnight.

Observatory owner and operator, Nick Nichols, expects a huge turnout of visitors to his astronomer's haven, which is perched on a hill in the beautiful Washington Countryside southeast of Slinger. Member astronomers will host an open house at 1:00 p.m., give tours, present programs, and answer questions. Those people curious about the night skies can directly view billions of stars and even a few planets through a 12.5 inch telescope. An in-depth description and story of the observatory will later appear in *Telescope Making* magazine.

And, if guests enjoy seeing the stars, they will be fascinated to discover the mysteries of short waves as special-event station operators in action bounce radio signals around the earth and promote Amateur Radio. Contacts will be made on frequencies 30 KHz up from the bottom of the CW bands, and on many SSB frequencies. Ask AE9K for details.

- Rich Regent, K9GDF

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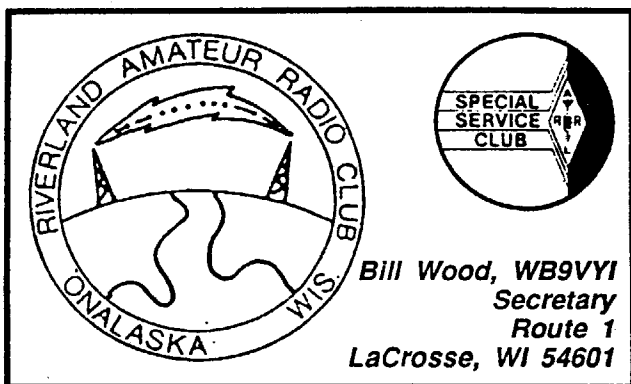
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Bill Wood, WB9VYI
Secretary
Route 1
LaCrosse, WI 54601

Greetings.

The regular monthly meeting of the Riverland Amateur Radio Club was called to order at 7:30 p.m. on April 4, 1989 by Vice-President George Kroner, KA9HOP.

The March meeting's minutes were read from the Badger State Smoke Signals and approved. Treasurer's report then given and accepted.

OLD BUSINESS

Craig Goldbeck, N9ETD, presented Kent Helman, W9LZQ, with the "Ham of the Year" award, which has stated on it "1988 Ham of the Year award, presented to Kent Helman for efforts that go above and beyond the normal in improving Amateur Radio in the La Crosse area. Presented by the Riverland Amateur Radio Club, Craig Goldbeck, President." (Kent was not able to be present at our Christmas party; this is why he received it at this time.)

Kent told us that "This award belongs to the people that have been involved in A.R.E.S. and Sky Warn in the area over the past years; this is really your reward and I'm going to remember each and every one of you every time I take a look at this. I hope your dedication will continue. Thank you."

Craig, N9ETD, reported on the jackets and t-shirts; prices went up since last year. He believes the jackets are now about \$36.50, and the t-shirts with the logo on the front are \$4.00, unless you want the Extra Extra Large, or Tall, then it's \$2.00 extra.

Charlie Burch, KA9UUK, told us the badges were in already, and we can pick them up tonight. Also, there were several more members wanting badges, so he is taking orders for the next batch.

Rick Williams, KV9U, announced the next exams will be Thursday, June 15th, at 7:00 p.m. at the Onalaska Civic Center. We were requested to sign up soon, because he needs to send off for the correct number of materials a month in advance of the testing date.

NEW BUSINESS

Kent Helman, W9LZQ, reported that only a few showed up for the Sky Warn training session. There was a new set of slides shown. He then offered new sign up forms and hopes to have more training sessions, and asked us to monitor '97 during bad weather conditions for instructions and whatever else might be needed or reported

(especially to those in A.R.E.S. and Sky Warn).

George Kroner, KA9HOP, showed us how we might get, and get rid of, some of our "electronic goodies". At the next meeting, if you have something you'd like to get rid of, or trade off, please place it in a grocery bag; when you get here, take your sign-in number off the sign-in sheet and put it on the bag. Then place it with the other bags on the special table provided. After the meeting, you can then take a different bag and you have a new item or two for your efforts.

Charlie Burch, KA9UUK, motioned, Herman Ludvik, W9HJV, seconded and it passed to have new membership cards made up with the new information on them after we've pretty well solidified the programming, and what needs to be on the cards.

Charlie, KA9UUK, made, and Craig, N9ETD, seconded a motion to give the new members a membership card and patch, upon completion of the application sheet, and all agreed.

Steve Pavela, KA9TSW, reminded us that about a year ago, he volunteered to be "Awards Manager", and wanted us to know that if we have "WAS" or "5 Band WAS", etc., to see him, if you'd like to save some postage and time by having your cards checked locally.

37/97 REPORT

Curt Phelps, KA9YPF, reported on a couple of small changes made in the controller commands for various functions that were necessary to overcome a problem with other commands. (New instructions were made available at the meeting.)

Craig Goldbeck, N9ETD, reminded us of the potential of forgetting to identify properly while using the auto-patch, and we should see one of the members of the repeater committee if we'd like a speed dialing number.

Charlie, KA9UUK, moved, and Craig, N9ETD, seconded, a motion to adjourn at 8:12 p.m. All were in favor.

John Jorenby, KA9ETH, handled the program of the evening, by showing a set of slides he's made concerning the Barneveld tornado that just about wiped that city off the map. 97 percent of us stayed for the presentation, and appreciated seeing just how awesome and devastating our weather can get. Thanks, John.

Respectfully submitted:

Bill Wood, Sec./Treas. RARC

MEMBERS PRESENT

| | |
|---------------|--------|
| Charlie Burch | KA9UUK |
| Bill Winder | K9EGQ |
| Herman Ludvik | W9HJV |
| George Kroner | KA9HOP |
| John Jorenby | KA9ETH |
| Curt Phelps | KA9YPF |
| Walter Altus | WD9GCR |

Van Elston
Knute Knutson
Al Reinholz
Art Osborn
Wid Johnson
Dick Konrad
Hugh Barker
Arby Boomer
Glenn W. Whitlock
Greg Miller
Ralph Jahimiak
Philip Long
Tom Gromacki
Karl Olberg
Karl Simonson
Kent Helman
Roger Reader
Ron Reed
Ken Weigel
Bob Selbrede
Jack Yoshizumi
Craig Goldbeck
Steve Pavela
Les Jenks
John Young
Ron Martinmaki
Rick Williams
Gary Webb
Charles Ferris
Tom Speropulos
Dallas Miller
L.F. "Nook" Bentzen
Bill Wood

WA9FIO
W9SFL
N9FZE
W0JDC
W9DM
K9DXO
KA0EJZ
WF9T
N0BBW
KA9FOZ
WA9QAE
KA9RLI
KB9BIS
W4ST

W9LZQ
KA9BKK
KD9OY
N9CDT
KA9EZR
W9KTD
N9ETD
KA9TSW
W9AKY
W9KAZ
W9EOA
KV9U
N19V
W9TCW
N9IGS
K9LEC
K9EGO
WB9VYI

GUESTS PRESENT

Theresa Miller

John Bakler

Disaster Conference May 16 & 17

The annual Governor's Conference on Emergency Management will be held May 16 and 17, 1989, at Olympia Village in Oconomowoc, Wisconsin. The conference had originally been scheduled for April 25 and 26, but was rescheduled at the governor's request.

As far as we know, an Amateur Radio station will be operated from the conference again this year; the call sign will probably be WC9AAG.

If the station is operated from the conference, the operators will be looking for contacts in as many Wisconsin counties as possible. We believe the station will operate on 3985 KHz and on several two-meter repeaters; packet may possibly be operated, as well. If you do not have 75 meter capability and are out of range of the Milwaukee area repeaters, you may be able to find a station to relay your checkin.

We apologize for the sketchy information about Amateur Radio operation from the conference; our request for information from one of the possible operators was not answered.

Having a Swapfest? Advertise it state and area-wide here in BSSS! Info from K9EN.

Canadian Deregulation Proposed

The Canadian Department of Communications (DOC) has published a notice in the Canada Gazette (February 18) outlining proposals for deregulation of the Amateur Service in Canada.

The proposals would (1) eliminate restrictions on the type of emissions Canadian amateurs may use within the amateur bands and instead, simply specify maximum permissible bandwidth in each band without specifying subbands by mode; (2) permit foreign amateurs visiting Canada to operate with the same frequencies and emissions as Canadian amateurs (at present, "lowest common denominator" restrictions apply); (3) eliminate endorsements to the Amateur Radio Operator's Certificate, the legal authority for which apparently is questionable, and incorporate the privileges now granted by endorsement within the basic Amateur Certificate (one popular endorsement available to a licensee after six months, permits 10-meter phone operation); and (4) accomplish some other, relatively minor, updating and revision.

The Canadian Radio Relay League (CRRL) recognizes the problems likely to be created by deregulation of subbands in Canada, and at its August 1987 meeting, the CRRL went on record to request that DOC recommend the use of International Amateur Radio Union (IARU) bandplans should deregulation occur. To place American Radio Relay League concerns on the record, President Larry Price, W4RA, sent a letter to CRRL President Tom Atkins, VE3CDM, with the request that the ARRL's comments be incorporated in the CRRL filing (deadline for which was March 18).

President Price stated that DOC's proposals for privileges to be granted to foreign amateurs visiting Canada are quite generous, easy to understand, and adoption of these proposals would resolve some ambiguities associated with reciprocal licensing. The proposals for HF mode subband deregulation, however, appear to be based on an incorrect premise and raise serious concerns among US amateurs. The DOC states "Such an elimination of emission restrictions permits the Canadian amateur to enjoy equal privileges on a par with other radio users in the international radio environment and particularly with those privileges currently extended to US

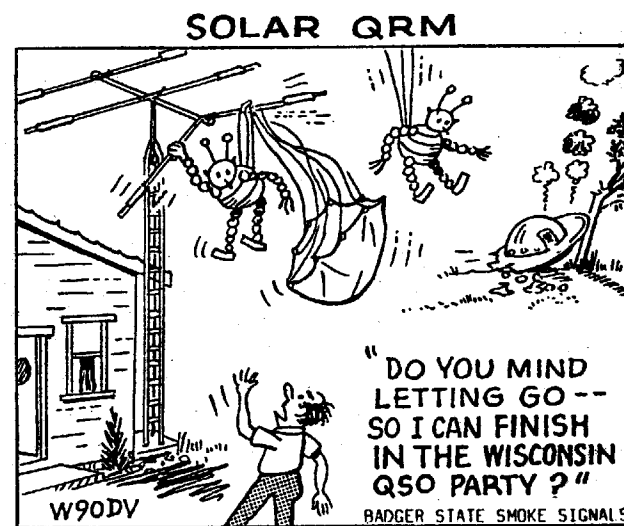
radio amateurs." At least with regard to US HF privileges, this statement is fundamentally incorrect.

Canadian amateurs already enjoy considerably greater freedom to use the most popular HF mode, SSB emission, than do their US counterparts. If the purpose of DOC's proposal is indeed to bring about equity between US and Canadian amateurs, then the proposal is unnecessary and should be abandoned or significantly modified.

The real question is how Canadian amateurs will respond to deregulation. We have faith in our Canadian brethren to act responsibly, if given the proper guidance. However, we believe that it is a responsibility of the DOC, in proposing to upset the existing equilibrium, to emphasize to its licensees the extreme importance of Canadian amateurs observing the voluntary band plans that have been developed through the representative international mechan-

isms of the IARU. We (the ARRL) were disappointed to find no such reference in the notice, nor in the proposed regulatory text.

- The ARRL Letter



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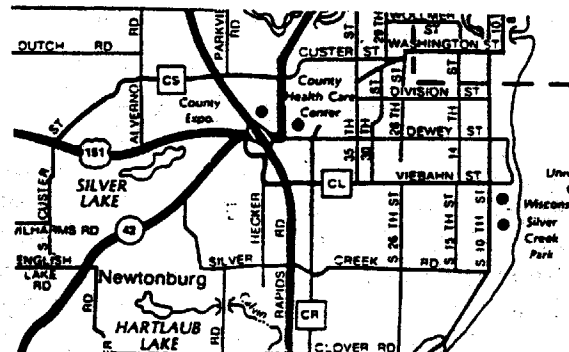
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Dial Before You Dig

By John W. Frank, WB9TQG
P.O. Box 5113, Madison, WI 53705

Dial before you dig: Four simple words, right?

Perhaps, but excavators caused utility damage 414 times in Wisconsin in 1988. Fires, floods, explosions, power outages, telephone and cable television interruptions can all be caused by digging up underground utilities. Not only will the person or company responsible for the excavation be expected to pay for the repair of any damaged utility, there may also be other legal problems. Wisconsin Statute 182.0175 requires anyone responsible for excavation to provide advance notice to underground utility owners who might be affected by the excavation.

Spring is here. The time has come to bury the radials, put up a new tower, set guy anchors in concrete, or whatever. In the interest of personal safety, please call the diggers hotline at (800) 242-8511 at least three days before you plan to dig. The diggers hotline then notifies the utilities that serve your area so that a locator can be dispatched to your worksite to mark the locations of water and sewer pipes, cable TV, gas lines, telephone wires, electric power cables, or any other buried utilities.

What happens if you don't call the diggers hotline? Well, you might end up with a trench like the one shown in the photo at right. A septic tank subcontractor dug a trench and cut through a telephone cable. One FM broadcast station lost its program. Another FM broadcast station lost its remote control line. A National Weather Service transmitter went off the air for several hours. And, when the chief engineer for the FM broadcast station went

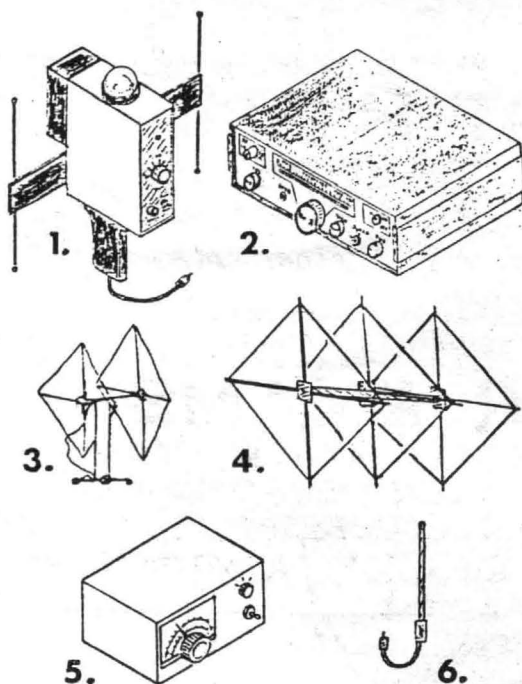


AN EXPENSIVE MISTAKE — CUTTING BURIED UTILITY CABLES

out to see what was wrong, he couldn't call the telephone repair service because the phone was dead. The septic tank subcontractor ended up losing money on this project, because he had to pay the entire cost of fixing the phone lines, which involved the work of five telephone company employees and the backhoe used to find one end of the severed cable.

Spring is here, so don't forget those four important words: Dial before you dig!

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ARRL Committee Recommends No-Code License

(Continued from front page)

members from the ARRL Board of Directors, Amateur Radio industry, and radio amateurs at large, as follows:

ARRL Vice President George S. Wilson III, W4OYL, Chairman; John Crovelli, W2GD, At Large; Y.E. (Ed) Juge, W5TOO, Industry Representative; Kenneth G. Kopp, KØPP, At Large; C. Mike Lamb, N7ML, Industry Representative; and Rod Stafford, KB6ZV, ARRL Director, Pacific Division.

In addition, the following consultants were designated:

Thomas B.J. Atkins, VE3CDM, Canadian Radio Relay League President; Larry E. Price, W4RA, ARRL President; Leland Smith, W5KL, Quarter Century Wireless Association President; David Sumner, K1ZZ, ARRL Executive Vice President.

The committee stressed that its proposal, if adopted, would not cause any licensee to lose any present privileges. It proposes a new class of Amateur Radio license, with a written examination somewhat more comprehensive than the present Technician exam, but with no requirement for a Morse code examination. Holders would be permitted to operate on all frequencies and with all privileges now available to Technicians above 30 MHz, except

that 2-meter operation would be limited to frequencies between 144.9 and 145.1 MHz and to digital modes only. Examinations would be given only by accredited Volunteer Examiners, and distinctive call signs would be assigned.

The committee carefully reviewed a wealth of input from interested individuals and clubs, as well as information it had requested from International Amateur Radio Union member societies in other countries which already have a code-free class of amateur license. A large number of alternatives were discussed by the committee in developing its recommendations.

Executive Vice President Sumner stressed that the committee's report does not represent League policy at this time. The Board of Directors is the policy-making body of the organization, and as such will determine whether the report, with or without modifications, will become League policy. He pointed out that the League is a representative democracy, with Directors elected to represent the members of their Divisions. Accordingly, anyone reading the report and wishing to have his or her views considered is urged to write the Director of their Division sometime prior to the July Board Meeting.

— The ARRL Letter

Severe Weather Operations - 1989

With the coming of NEXRAD and its dramatic effect on Amateur Radio severe weather operations, this material is presented for review and for newcomers. It does not imply that present operations are inadequate in any way. Instead, its intent and purpose is to fine-tune an already excellent operation. The coming of doppler radar represents a challenge and an opportunity for Amateur operations. The National Weather Service (NWS) and the state Amateur Radio Emergency Service (ARES) leadership are well into a concerted effort to provide all support possible in this fine-tuning process.

A BRIEF HISTORY

In 1967, Dave Theophilus, W9KWQ, and Sherm Carr, W9NGT (who was Section Emergency Coordinator at that time), and with the approval of R.W. Harms, Meteorologist in Charge of the National Weather Service office in Milwaukee, began an effort to involve Amateur Radio in the newly implemented "SKYWARN" program. Dave, a staff meteorologist at the Milwaukee NWS office, along with Bill Harms, and with guidance from the Severe Storms Forecast Center in Kansas City, developed the criteria, and Dave and Sherm worked out the procedures. By the spring of 1969, the procedures, format and criteria were finalized, and the ARES-coordinated severe weather operations became official.

Each year, we review procedures, message format, and severe weather criteria to be ready for the upcoming severe weather season, and to reach those Amateurs who perhaps are getting into severe weather operations for the first time. While these procedures are very simple, and have been used essentially unchanged for some 24 years, it is like spring training for the pros: we all need the pre-season training, too.

This year, and the next, are important for several reasons:

1. In preparation for, and a major step toward doppler radar in Wisconsin, the National Weather Service Main Forecast and Warning Center is moving to a new location near Sullivan in Jefferson County, and should be operational in October, 1989. The new doppler radar should be operational in 1991.

2. With this dramatic development, Amateur operations will need to become more efficient to match the speed and precision of this new weather surveillance tool.

3. Aware of the Amateur's needs in this new era, the Weather Service has prepared an all-new spotter training program which will be available to all operators very soon.

4. The doppler radar era will require more extensive coordination of all spotter networks, with uniform operating pro-

cedures throughout the state, even though at present the operations in various areas are strikingly similar.

5. With weather service operations completely computerized, the turnaround time between a reported severe weather event and the issuance of a warning is less than one minute. Clearly, with this time frame, data acquisition time could very well become the limiting factor. As a consequence, and as one source of severe weather data, Amateur circuits must be

(Please turn to page 10)

ANNUAL EAU CLAIRE

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Saturday, July 15, 1989

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\$2.00 in Advance

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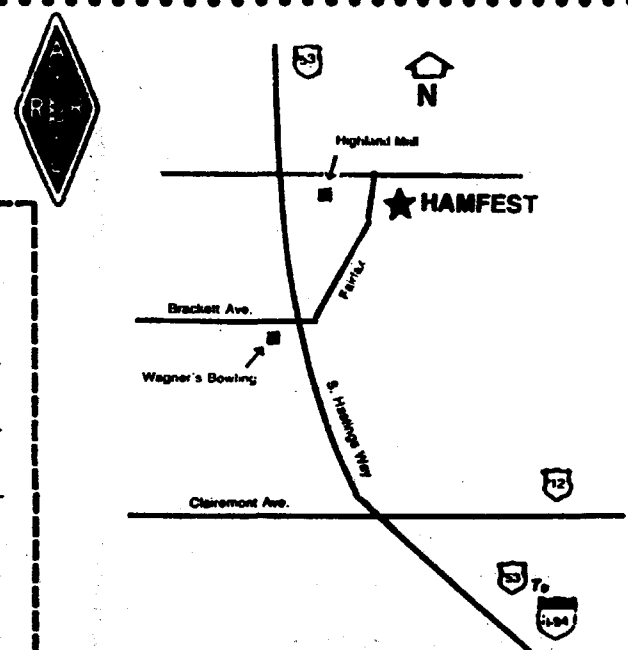
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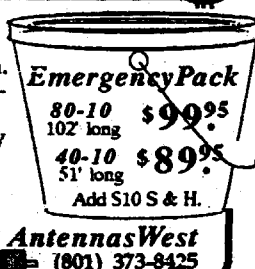


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Eau Claire Amateur Radio Club

**Bob Fallis, W9BAR,
Secretary
1851 McKinley Road
Eau Claire, WI 54703**

The next meeting of the Eau Claire Amateur Radio Club will be held Tuesday evening, May 10th, 1989. The meeting will start at 7:30 in the Parks and Recreation building, 1300 First Avenue.

MINUTES OF THE APRIL MEETING

The meeting was called to order at 8:36 p.m. Normally, our meetings start at 7:30, but tonight's program was presented by Paul Bittner, W0AIH, and he had other commitments, so the program preceded the meeting.

Paul made an interesting and informative presentation. He told us of his experiences erecting towers and antennas, showed us some of the special tools required, and explained some of the techniques he uses. He offered many suggestions on how to inspect and maintain towers and antennas. Many thanks, Paul.

Mike McAlister, WD9DLM, presided over tonight's meeting. There were 23 members and one visitor present. The financial report was read and approved. There was no reading of the minutes of the last meeting.

Joe Eide, KB9R, has edited and printed a roster of our 1989 membership. This has been mailed to most of our members. If anyone would like to have a copy, contact Joe.

Steve Harr, KD9YO, has been taking care of the publicity for our July Hamfest.

The local TV Cable Access Channel is sponsoring a show at the London Square Mall April 29th and 30th. It will be called the Chippewa Valley Family Communications Fair. We have been invited to set up a booth and take part in the show. Jim

Wiskow, KE9BC, and Mike McAlister, WD9-DLM, have volunteered to take charge of the booth. All members are invited to take part in this event.

Dave Hanson, K9ZVZ, has offered to publish an information bulletin. This will be available as a handout during the fair, and available for future distribution.

The March of Dimes Walkathon will be held May 29th. Once again, we have been asked to assist. We will furnish personnel for communications and control during the event. Carl Searing, W9NW, will coordinate this event. Call him if you can help with this one.

The local Riding Club will host a bicycle cross-country race here in Eau Claire on May 21st. Our assistance has been requested during the race. Final arrangements for this event will be made at the May meeting.

Meeting adjourned at 9:42 p.m.

Lunch committee for May: KE9BM, KF6SF, and W9ZZI.

Respectfully submitted:
Bob Fallis, W9BAR, Secretary

Severe Weather Operations - 1989

(Continued from page 9)

equally efficient, especially where liaison stations must relay from one circuit to another.

6. Concern has been voiced that the coming of doppler radar will make obsolete the Amateur operations. Far from it. Amateurs will continue to play a key role in this new environment, although there may be a few minor changes in procedures.

NET OPERATIONS

The net control station (NCS) is a key element in a successful operation. The NCS maintains a roster of checked-in stations and their locations, maintains a log of all reports meeting the severe weather criteria, maintains net discipline, logs all data emanating from the Weather Service, and makes sure the Weather Service operator copies all pertinent reports and data.

The Weather Service operator monitors, copies, and acknowledges all reports meeting severe weather criteria, and, as often as circumstances permit, issues radar summaries and other data and updates to provide all operators with "where and when to look" information.

Liaison stations are also key stations. They are vital links tying networks together for disseminating information, and to relay severe weather reports to the primary network. They operate in pairs. One relays severe weather data to the primary network; the other relays information from the primary network. The primary network is the system serving the Weather Service office. As with the NCS, good record keeping is essential. Finally, the liaison

station may be the screening station, to screen out those reports that are of no interest to the Weather Service.

SEVERE WEATHER CRITERIA

The Weather Service, with only occasional exceptions, is interested in these severe weather events:

1. Tornado on the ground, causing damage
2. A rotating funnel cloud aloft
3. Winds, 55 mph or higher
4. Hail, one-half inch or larger
5. Actual damage or flooding.

All Amateurs should be aware that only reports of events meeting the five criteria items are ever actually delivered to the meteorologist. Anything else, although it may be acknowledged by the NCS, is simply ignored.

SEVERE WEATHER MESSAGE FORMAT

The message format, in use for many years, permits transmission of information about even the most catastrophic weather event in from 30 seconds to one minute. In view of the very short turnaround time at the Weather Service, such messages must be as brief as possible. Messages consist of only three main elements, and, under some circumstances, a fourth:

1. Time of occurrence
2. Exact location
3. The severe weather event itself, from the five items listed above
4. Source of information, if other than the reporting station, and verified as an

actual occurrence.

The message elements are clear, but some clarification is useful:

1. The time of occurrence is important and should be established as accurately possible. Where it is impossible to determine the time of occurrence, the message must state "EXACT TIME NOT AVAILABLE".

2. The exact location must be given in geographical entities easily located on a map. In large cities, major streets or avenues are used. Obscure streets, mile markers, county and town roads are virtually useless. Distance and direction from the nearest easily located city or town is the best.

3. The severe weather event is just that - no more. The fact that it is happening is important, not what it is doing, unless it is causing damage. It must be kept in mind that the Amateur's role is to enhance the warning process. Time is wasted by wordy descriptions.

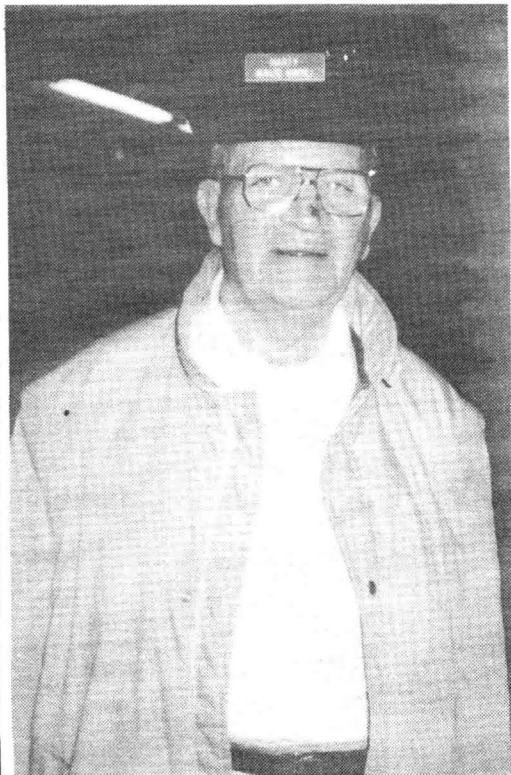
4. The fourth item, source of information if other than the reporting station, must be used with extreme caution. The reporting station is responsible for any data transmitted, and must be sure it is accurate.

Almost everyone has a scanner. What one hears on law enforcement channels must be screened very carefully. Where a squad reports an event, the procedure is easy, is usually accurate, and time and location can usually be determined. It must be remembered, however, that where a dispatcher is sending a squad to investigate a report of a touchdown or other event, the report is usually from the public, a notor-

(Please turn to page 15)

Madison Swapfest Photos

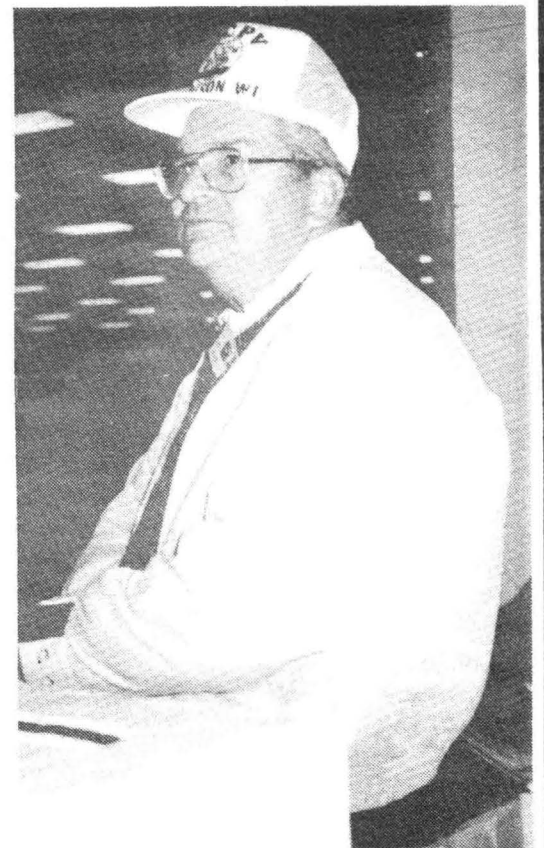
Sunday, April 9, 1989
Dane County Forum Building



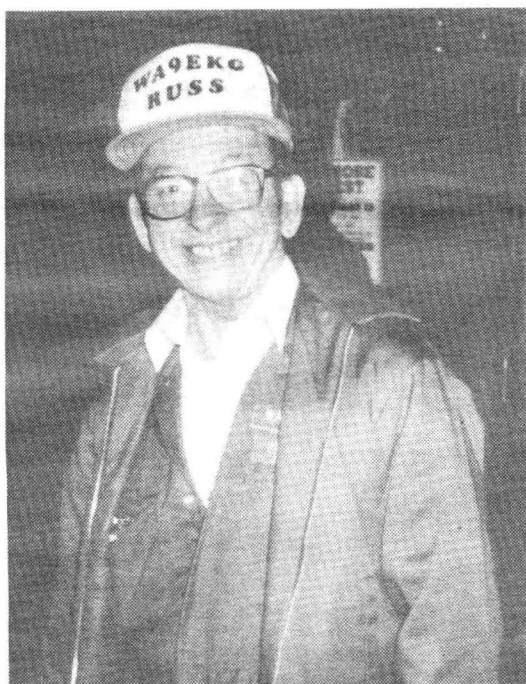
Marty Erschnig, W9IZG, Delafield



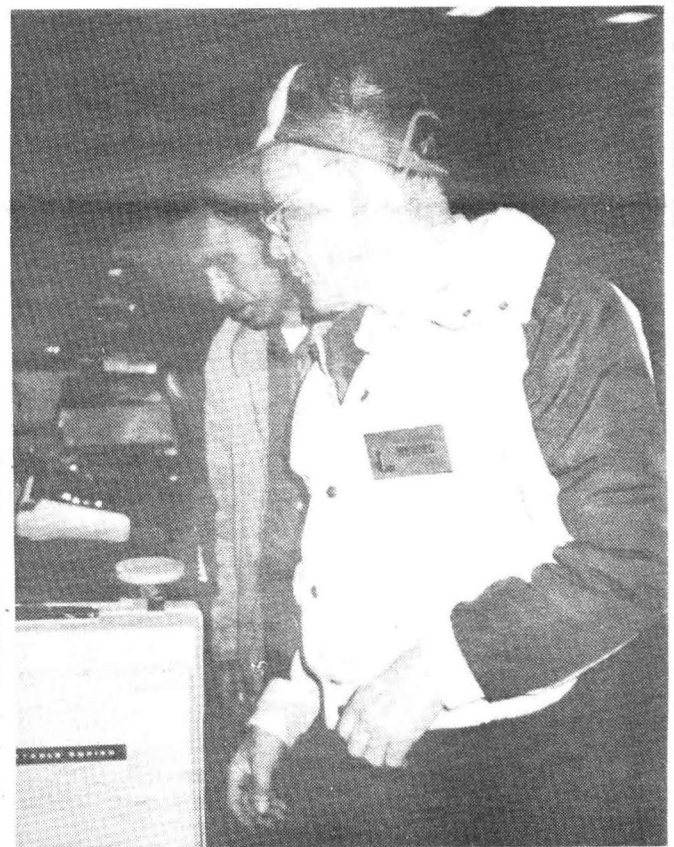
Ken Ebner, K9EN (left), handles a transaction at the BSSS table with Jim Caldwell, WB9YPY, Rhinelander. Ken is Chairman of Badger State Smoke Signals, and is also our Circulation Department.



Bob Wigen, N9CPV, Madison



In the photo at left is Mike Schoenfuss, N9GHZ, of Abbotsford. Mike is the editor of the Communicator, a club newsletter for the Taylor County Amateur Radio Club. He is also a Public Information Assistant. Above left is Travis Baird, W9VQD, Milwaukee. And, at right above, is Russ Webber, WA9EKG, Sun Prairie. Russ is one of the net control stations on the Sunday morning swap net, held on 146.88/Baraboo at 10:00 a.m.



A. C. Ramage, WB9RBC (foreground), Princeton, WI, looks over the goodies on the Green Fox Amateur Radio Club table.

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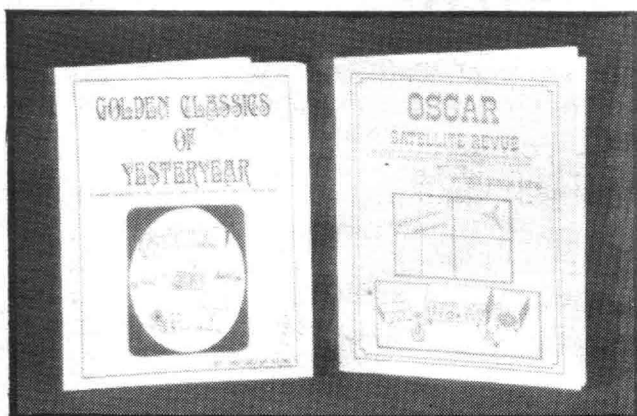
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scriptions are used.

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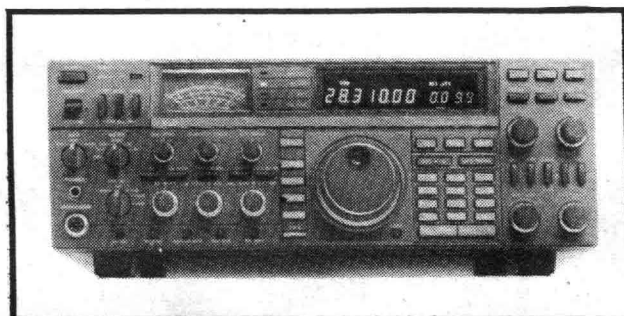
K4TWJ even shows you how to work the Russian robot on RS-10 - and exactly how to receive a QSL card confirming this rare DX!

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- ICOM news release

One Course Deserves Another

Milwaukee ARES members enjoyed a memorable program of weather facts at their monthly meeting in the Red Cross building at 26th and Wisconsin.

Severe weather expert Tom Zajdel, well-known National Weather Service Meteorologist in Milwaukee, tested his sparkling new weather spotters talk on the ARES group. Forty Ham communicators became impressed as they leaned forward to watch a fast-paced program of 150 colorful slides tell the story of quick storm formations and severe weather movements. Supplemented by detailed professional facts about cloud formations, Tom taught the gang the where's and what's of sky watching in a two-hour program that held everyone's interest. The entire program was videotaped for possible use at a later time as a refresher course, or for other groups to use.

Tom received well-deserved applause when he finished his talk. Then, ARRL District Emergency Coordinator, John Leekley, WB9SMM, presented Tom with a rather novel gift, another course - the Heathkit ERS-3702-C Amateur Radio General Class study course. Tom, excited about Amateur Radio, was very pleased to receive a gift that will help him to reach one of his special goals, to finally get his own license. Thankful ARES members were just as happy to get the weather course they just received from Tom.

Among many good virtues, Tom Zajdel is always known for his patience and effort. So, there was no doubt in anyone's mind that Tom will be able to study and pass the test to soon become a Ham. Besides, Heathkit guarantees it, and gives 5 CEU credits.

- Rich Regent, K9GDF

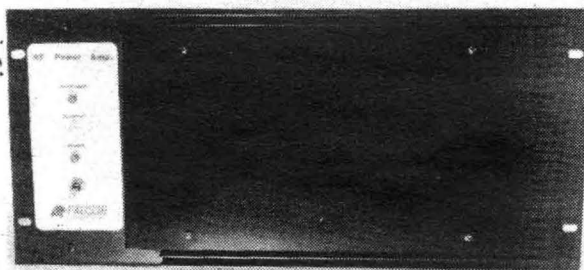
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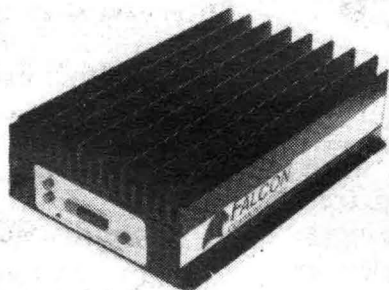
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ARES Severe Weather Procedure, Criteria, and Message Format

A. Unless otherwise indicated by the National Weather Service, only one or more of the events in the following criteria are reportable:

| EVENT | REPORT |
|------------------------------------|-----------------|
| 1. Tornado on the ground | Tornado |
| 2. Funnel cloud aloft and rotating | Funnel cloud |
| 3. Winds 55 mph or higher | High winds |
| 4. Hail, one-half inch or larger | Hail |
| 5. Actual damage or flooding | Damage/flooding |

B. Message format for reporting severe weather:

1. Time of occurrence
2. Exact location
3. Severe weather event from (A) above
4. Source of report if other than the reporting station.

C. Reporting procedure:

1. Call the Net Control Station and use one of the five criteria to indicate a valid report.
2. NCS will indicate "GO AHEAD".
3. Transmit the report at longhand dictation speed, using message format in (B) above, without repeating your call sign.
4. NCS will respond with a simple "ROGER".
5. Weather Service will also "ROGER".

EXAMPLE:

Station calling: "WB9 ALPHA BRAVO CHARLIE HAIL"

NCS: "GO AHEAD"

Station calling: "AT 4:35, HWY 20 AND 36, NEAR WATERFORD, RACINE COUNTY, 3/4 INCH HAIL"

NCS: "REPEAT THE TIME, PLEASE"

Station calling: "4:35"

NCS: "ROGER, NCS CLEAR"

Weather Service: "WEATHER SERVICE, ROGER"

TRANSMISSION IS COMPLETED!

D. Be available for followup information, if necessary, or as requested.

E. Followup message:

1. Call the NCS, using the word "FOLLOWUP".
2. Start the message with:
"REFERENCE THE REPORT OF (EVENT), OCCURRED AT (TIME)".
3. Follow with added or requested information.

F. Be alert and note all information disseminated by the Net Control Station or the National Weather Service operator.

Severe Weather Operations - 1989

(Continued from page 10)

iously unreliable source. The monitoring station must wait until the squad arrives on the scene and either verifies or discredits the report. Key words are "DAMAGE" and "INJURY". If these are verified, the report is probably valid. In any event, the time the squad is dispatched should be noted, to establish the approximate time of occurrence, in case the event is verified.

THE FOLLOWUP MESSAGE

The initial severe weather message must be as brief as possible, for obvious reasons. It does not allow lengthy descriptions of the event.

If there is additional information, or if requested by the Weather Service, a followup message can be sent after the Weather Service has initiated whatever action is indicated. Although it, too, must be brief, it can be a short narrative supplying the needed data.

The station simply calls with the word "FOLLOWUP".

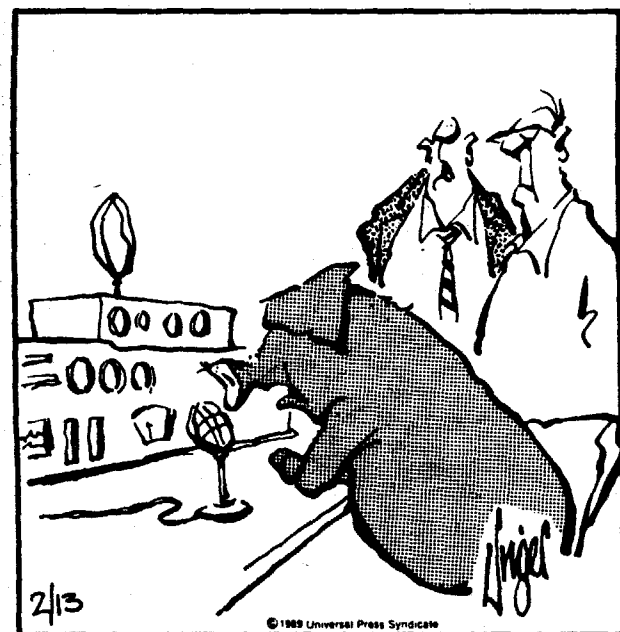
One very important reminder: the followup message must be referenced to the original report clearly and accurately, to avoid confusion.

THE INDIVIDUAL SPOTTER STATION

No matter how complete the plans or how expert the leadership, no system can be successful without the individual participating stations. The major effort must be to provide them with the proper training and information materials to enable them to get the job done.

The individual operator has a lot to keep in mind, and preparedness is the magic word:

Herman



"You never seen a ham operator before?"

1. National Weather Service forecasts will usually project the possibility of severe weather up to 12 hours prior to its arrival. On the other hand, severe weather can - and often does - develop in a matter of hours, so the individual stations must be alert, and attempt to keep abreast of developments. There is a good logic to this. Aside from being ready to operate, it makes sense to be alerted ahead of time to regulate personal activities.

The Weather Service VHF broadcast stations are still the most reliable source of information. If this source is faulty, although it seldom is, no other source can be any better.

Where everyone is informed and alert, severe weather operations are almost self-starting, with a bare minimum of organizational traffic.

2. It is almost axiomatic that equipment always fails when it is needed the most. To defeat Murphy's Law takes some doing. The "every once in a while" intermittent antenna, the flakey mike cord, and many other minor failures, while merely annoying under normal conditions, can be very serious in a situation where reliable communications are essential in a life-threatening emergency. Not much need be said of this. Everyone knows that reliability is crucial.

3. The Weather Service criteria for reportable events is quite clear, but has presented problems in the past, especially at night when visibility is almost non-existent.

a. The first, tornado on the ground, is easy in daylight. At night, the first indication is sometimes reports of severe damage. However, if the spotter is up to date on the storm's behaviour, and an approximate Estimated Time of Arrival (ETA) is available, detection may be easier.

b. Funnel cloud aloft is not easy. Even in daylight, it must be watched for a time, or it could be mistaken for a dense rain shaft. At night, the only visibility is from lightning flashes. Illumination in bursts of from one-tenth to four-tenths of a second is far too brief to detect rotation. How-

ever, most tornados and funnel clouds are accompanied by scud clouds - small, fragmentary, lighter colored clouds traveling around the perimeter at fairly low altitudes and at fairly high speeds. Observed for some minutes, they will be in different locations with succeeding flashes, and can reveal rotation. In any event, they must be watched for a time, especially if radar shows a suspicious echo in that location.

c. High winds are also tough unless the spotter has access to wind velocity instruments. The tension and atmosphere of urgency during severe weather creates a tendency among many observers to estimate high. Surface winds in excess of 40 mph during fair weather rarely cause concern, yet when these same winds are experienced during a storm, they are often unduly alarming, hence the high estimates.

The 55 mph criteria was carefully chosen as that velocity which will begin to damage structures and trees. It is a reliable figure. The observer, then, should look for some damage, however minor, to support a high winds report. On the other hand, if the observer is reasonably sure of the winds, with no other support, it should be reported, qualified with the word "ESTIMATED".

d. Hail is relatively easy to assess. However, this criteria may be changed if the Weather Service feels it necessary. Small hail can occur with some non-violent storms. Here the spotter must be alert to this change if it occurs.

e. The last, actual damage or flooding.

(Please turn to page 16)

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Severe Weather Operations

(Continued from page 15)

poses no real problems. Damage is an immediate effect, while flooding can occur some time after the storm has diminished.

4. Most Amateurs are aware, but some may not be, that many emergency government, law enforcement, county and municipal agencies routinely monitor Amateur severe weather circuits because of the first-hand information available. The Amateurs' image as a viable emergency communications resource can be either considerably enhanced, or degraded, by what they hear.

5. When severe weather must be reported, the message should be written first, and then transmitted at longhand dictation speed. This eliminates fishing for

words, and the message, or any part thereof, can be repeated verbatim. For the portables and mobiles, the message should be rehearsed and memorized for the same reasons.

6. Personal safety is important. There is adequate material on the best vantage points to observe from. Without a clear picture of the storm track and where it is at a given time, it is foolhardy to risk becoming a casualty in an operation the sole purpose of which is to prevent casualties.

7. The procedure, criteria, and message format sheet should be kept handy at all times.

8. Finally, severe weather operations represents the Amateur Service at its finest. It is demanding, but extremely rewarding. The Amateur is an integral part of a

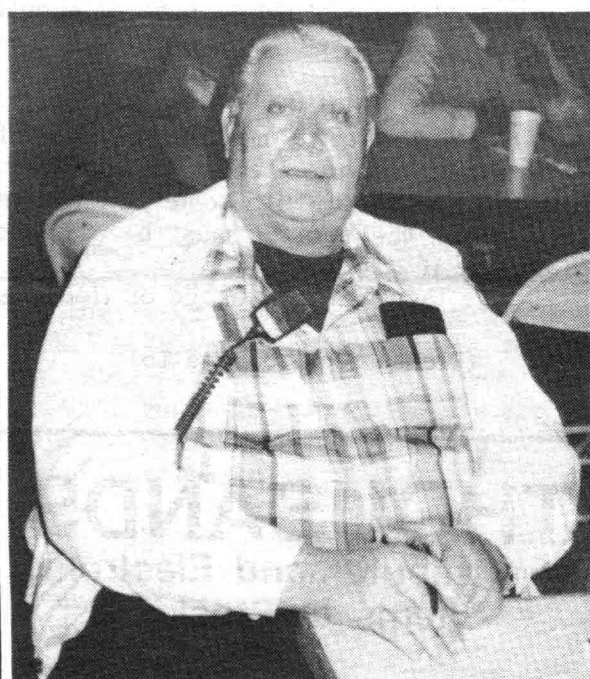
concentrated action with the Weather Service and all of the emergency and safety services, in conflict with nature in its most vicious mood. It is not for the glory hunters or the ego trippers. The responsibility is heavy, and stakes are high. We will either win big or lose big. There is no in-between. So, let's get to the fine tuning, and we can get the job done.

- Fred R. Wendt, W9ZAG
Section Emergency Coordinator,
Wisconsin Section
W128 S6473 Berger Lane
Muskego, WI 53150

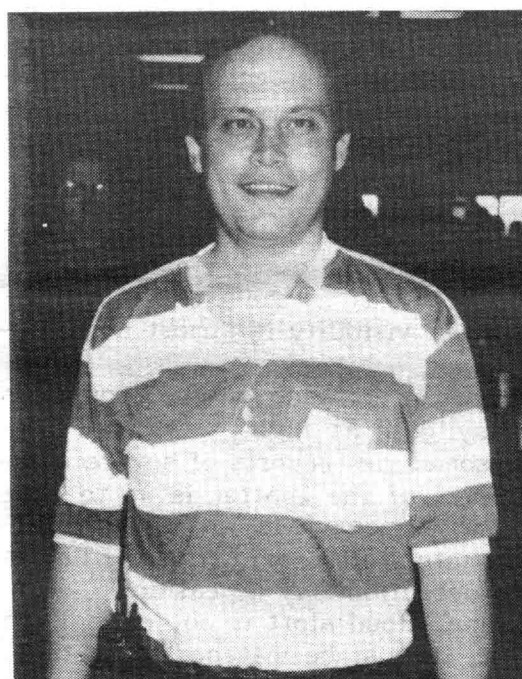
and

Sherman Carr, W9NGT
Assistant Section Emergency Coordinator,
Wisconsin Section
756 West Washington Avenue
Hartford, WI 53027

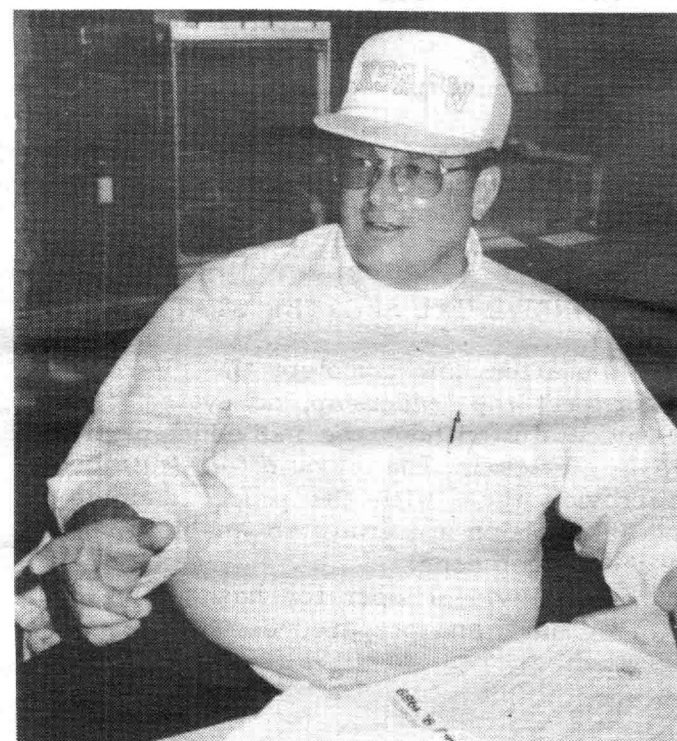
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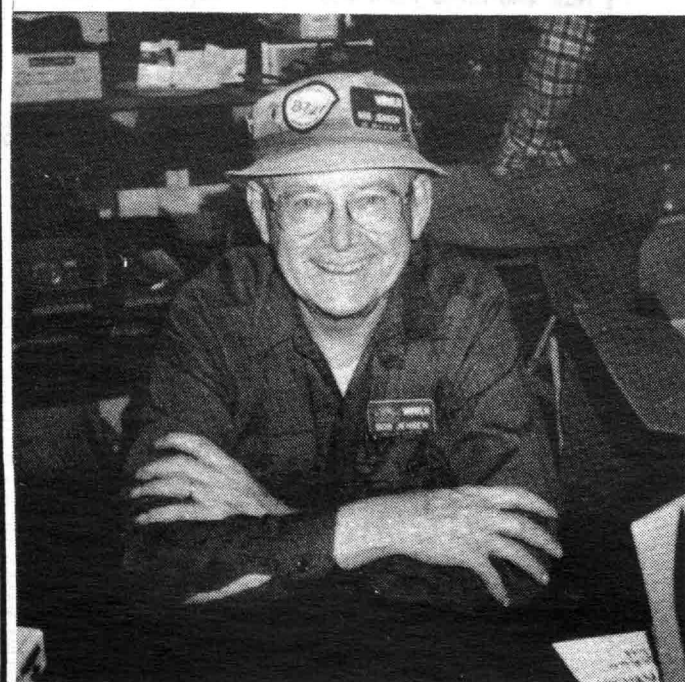
Dick Kimball, WA9MME, Menomonee Falls



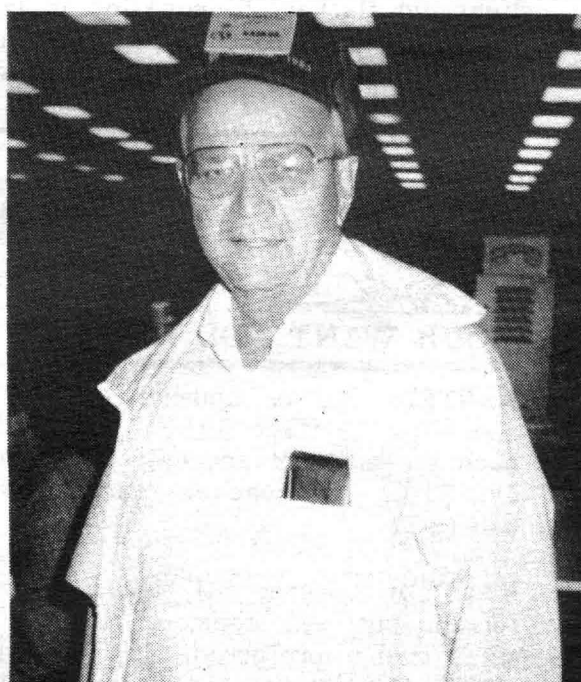
Jim Waldorf, KB9AQQ, Madison



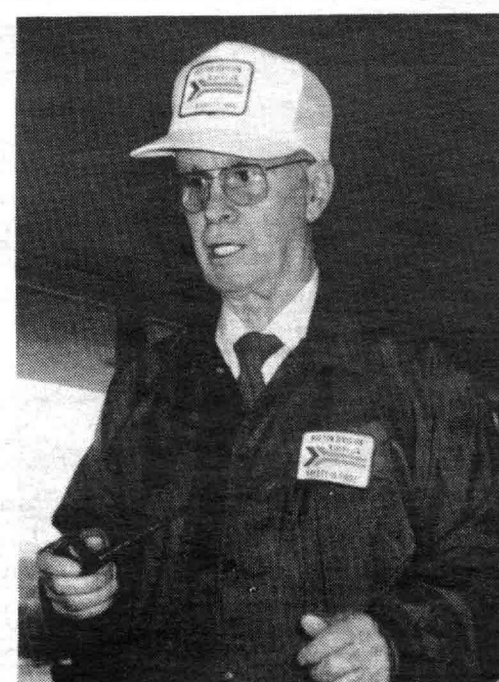
Dick Lust, K9 All Points West, Verona



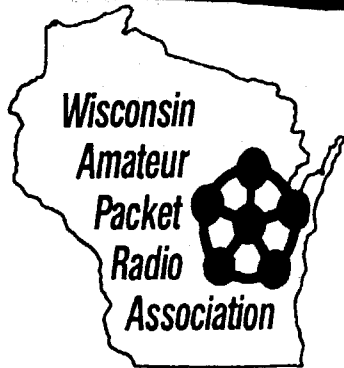
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Jim Peterson, KA9KUA, Cross Plains



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Steve Loeffler, WB9ZRE, Editor, 123 W. Oshkosh St., Ripon, WI 54971

1989 SPRING RIVERLAN CONFERENCE

A BREATH OF FRESH AIR!..... Kent Helman - W9LZQ

After a rather drab uneventful winter, it was good to see so many of our Wisconsin and Minnesota packet friends back for a beautiful spring day and the 1989 RiverLAN spring packet conference. This time, we were fortunate to be able to entice a few of our peers from northeast Iowa to participate in the conference. Folks from the Dubuque-Waterloo area made the trip and filled us all in on what was happening in packet radio in that area.

The day began with the regular RiverLAN business meeting in which new officers for the coming year were chosen. Van Elston, WA9FIO was elected Chairman and incumbent Duane, W9HWQ was selected Secretary-Treasurer, all by unanimous vote. Dan McKenzie, WCOV was appointed technical advisor and Walt Altus, WD9GCR was appointed as PBBS advisor. A new planning committee for the fall 1989 conference was appointed by the new Chairman. There was some discussion on the possibility of moving the RiverLAN conference to other geographical locales in an attempt to involve more packet operators. However, the general consensus was that although the RiverLAN group would be supportive of other conferences and would participate and help plan them, this particular conference should remain in the general geographical area of La Crosse, WI / Winona, MN.

The conference began with an update on packet activity in the various LAN's represented at the conference. SouthLAN is planning on some 450 Mhz tests which will be conducted in Minnesota and may also involve the RiverLAN group. Expansion is being planned in northeast Iowa which will make connectivity via the Rochester node easier. There may be a possibility of developing better connects between n.e. Iowa and Madison, WI also. John, WA9SOU gave us a fine update on his project at North Freedom. John reported that the tower has been restrung, thanks to the donations from many of the regional packet operators and groups. He has a project on the bench which involve 3 Packcom Tiny 2's which he plans to install at North Freedom. All is working well on the bench...now for the real test! RiverLAN's activity has been quiet but buzzing during the winter months. The 145.01 WA9FIO-1 (LSE) node is now located at the WXOW-TV site southeast of La Crescent, MN. All the equipment is ready for installation of the 145.09 LAN digipeater and within the next couple of weeks should be installed. WA9FIO has been working with N9BOE to make N9BOE-1 at Tomah into a node. All equipment is in place and should be converted this

week.

Ralph Wallio, WORPK, former vice president of operations for AMSAT as keynote speaker provided the conference an excellent summary of what is happening with phase III and what will be happening with phase IV. The main topic was the Microsat Oscars which are due to be launched in working quite well into MAD via WA9SOU-2. Give it the very near future. Ralph outlined the needed equipment to work the birds and described their purpose and functions. Ralph summarized the work of others with amateur satellites. He also described the high resolution work being done by the Central Iowa Technical Society. A space symposium will be held at Des Moines on November 10-13 which should be of interest to any amateur interested in satellite activity.

Gerald Wallen, K9EP was scheduled to be a guest speaker at the spring conference, however, due to recent physical problems was unable to attend. However, Gerry sent a very nice letter discussing the topic he was to address which related to packet radio and NTS. K9EP, of course, is the Wisconsin STM. Following reading of his letter, the conference participants had a lively discussion of handling NTS messages via packet. As the discussion proceeded, it was apparent that there were two major areas of concern surfacing. First, many packet operators do not properly utilize standard NTS format when sending traffic. Second, many NTS messages are being sent to PBBS systems when it is unknown if there are any local traffic handlers available to take the messages from the PBBS. The conclusions were that we need to do more to educate packet operators in the proper format for NTS messages and secondly NTS needs to be more knowledgeable of which PBBS systems have people available to handle NTS traffic.

A panel discussion was offered at this conference on the future of packet radio and specifically in relation to networking and more reliable connects throughout our region. Participating on the panel were Bob, KOSIR; John, 145.01. The LAN will be located on the 135' WA9SOU; and Van WA9FIO. The question of the need for coordination with neighboring LAN's was of particular interest. The general outcome of the discussion seemed to be that each LAN needs to move on its own, but must carefully consider what it does in relation to neighboring LAN's. Coordination should be a priority. It appears that 450 high speed links are the wave of the future and will be the preferable mode between nodes in eastern Minnesota and central/western Wisconsin.

Special thanks goes to the folks at Watlow Controls of Winona, MN who provided the fabulous facility for this conference. We appreciate Watlow's kind consideration and involvement in amateur radio activity.

Tomah Node.....

The Tomah, WI node is now operational. (alias CMY) seems to provide good coverage between LSE and STE. It also seems to be working quite well into MAD via WA9SOU-2. Give it a try...and INX to Bill, N9BOE; Van, WA9FIO; and Joel, N9BQM for making this operational!

Kent - W9LZQ

WB9ARG -> AA9M.....

EFFECTIVE SUNDAY APRIL 23 WB9ARG WILL REVERT TO AA9M.

If you have been digipeating through WB9ARG, Ray is back and will put his call sign back on (AA9M) Sunday morning.

SYSOPS TAKE NOTE FOR FORWARDING PATHS!

Kent - W9LZQ

Lan-Link 1.51 Fix.....

There is an easily fixed bug(?) in Lan-Link 1.51 in the autozap feature. Using a sector editor such as FileUtil in Jim Button's Bakers Dozen, find the 2 letter String LM in the Link.EXE file (there is only one occurrence). Replace it with KM, and save the change to disk. Now the autozap feature will - read your mail, read a "list of new files", kill your mail, and sign off.

John - KD9BC

East-Central Wisconsin LAN Planned for 144.97

With the blessings of WAPRA, a LAN will be established late this spring or early summer in East-Central Wisconsin to relieve congestion on the 135' Green Lake Amateur Repeater Association (GLARA) tower, three miles south of Big Green Lake in Green Lake County. N9BKJ-BBS in Waupaca will furnish a LAN mail-forwarding and x-connect port to 145.01 and will serve packet operators within a 50 mile radius. A backbone is planned for future expansion of the system.

"Turbo" TNC-2 Backbone Links.....

It is known that the TNC-2 with a 4.9 MHz clock can run up to 19K baud on a radio port. Most users, however, only use 1200 baud. Matjaz - Y13MV has designed a 23 cm PSK modem (Manchester

but presently, we have no TNCs to run at this speed.

Initial tests of the modem were made at 19200 baud. All worked OK and a 4000+ baud effective transfer rate was measured on a good link between two stations exchanging 100k files. 38K baud was attempted which resulted in so many retries, it was slower than 19K baud. The 4.9 MHz clock of the TNC was to slow to process each incoming character.

In order to use faster speeds, TNCs must be modified. The necessary modifications for faster TNCs are simple. A 2.4 MHz oscillator crystal replaces the original timing crystal to handle the increased baud rates (A TNC-2, an Eisch electronic clone, was running well using a 7.1 MHz crystal). The normal Z80 and SIO, rated at 2.5 MHz works well in 4.9 MHz TNCs (At least those that I tested). Using a Z80H rated at 8 MHz, we can expect an increase to 10 MHz. The same is true with a SIO-8 rated at 6 MHz. Memory speed is not a problem. The fastest any Z80 can access memory is slightly less than 1.5 clock cycle - less than 150 ns on 10 MHz system. RAM access is slower, but TNC-2 RAMs are 120 ns, so no need to worry about RAM.

Experimentation was made with two Eisch TNC-2 clones using 74HC chips in address decoding. The Z80A was replaced by a Z80H and the Z80A-SIO was replaced with a Z80B-SIO. Different EPROMs and crystals were tested.

250ns EPROMs worked well at speeds up to 11.16 MHz, however, a few 250ns EPROMs failed between 8 and 10 MHz. 200ns EPROMs tested well at 10 MHz, however no EPROMs functioned at 12.7 MHz. Different software was tested on the air (theNet, TF8, N2WX) to check all possible interrupts and instructions.

TNC-2s used on high-speed links (9600 baud duplex or 38K CSMA) can simply get better performance by doubling TNC-2 speed. With a 9.83 MHz XTAL we can use a spare 7474 flip flop to divide the speed by four and get 2.4 MHz from a single XTAL. Z80Hs and Z80B-SIOs are used, 150ns EPROMs are recommended. With selected devices even higher XTAL speeds can be used. All "turbo" TNC modifications should be tested carefully. It is better for the TNC to crash on testing than to crash on the mountain!

These modifications are not worth making on units running 1200 baud as it will not increase performance.

So, while we wait for better NODE controllers, the good old TNC-2 can fill the gap using present firmware for speeds up to 38K baud.

Iztok - YU3FK

MFJ HF Packet Tone Correction.....

The MFJ-1278 uses NON-STANDARD HF packet tones. To properly put it on frequency, add about 500 Hz to the desired operating frequency, i.e. for 14.103, add 500 Hz, which gives 14.1035 MHz. I found this fact out the hard way, after ordering crystals for my drifting Kenwood TS-120S.

Mike - WD6EHR

Upgrade Your PK-87 to a PK-88.....

In response to a question from G4BAU on how to upgrade a PK-87 to a PK-88 here is how.

The first step is to discover which version of the PK-87 you have, the difference lies in the crystal used in the clock oscillator. The old version uses a 2.4576 MHz crystal while the newer version uses a 4.9152 MHz crystal.

Items required - 32k static RAM low power (e.g. HN62256LP-15), a PK-88 EPROM, PLUS (for older version of PK-87) - 4.9152 MHz HC18/U parallel resonant crystal, 220pF high stability capacitor.

NOTE: There are two versions of the PK-88 to date. In the context of EPROM upgrades they differ in the device used for U22 (in PK-88), the old version having a 74HCT4040 and the new a 74HCT4020. The 4020 allows a slower clock interrupt rate this being selectable by jumper 7. Because of this, there exist EPROMs for both rates. ICS say the faster rate is the standard rate, which means you do not need to change the device in the PK-87, U12. (The non-standard EPROM is issue 30-DEC-88 checksum \$15 and needs the slower rate.) (The 4020 is a 14 stage counter as opposed to the 12 stage 4040 and can therefore divide the clock further but both are pin compatible in the pins that are used in the PK-87 and PK-88. If a change is made it will make no difference, except that if a slower rate is needed the 4020 will give the needed clock on pin 2. Once U12 is replaced with a 74HCT4020, to get the slower clock rate cut the track going to pin 1 of U12, at the pin and put in a link from the track to pin 2 of the device.)

Before starting it might be an idea to note your parameter settings so that any important ones can be re-entered after the modification is complete. Disconnect the cables and dismatle the TNC. Remove the link block from JP1 (beside lithium battery) and replace it on one pin only (disconnects battery from RAM).

Remove the EPROM and put aside, it is needed once more for testing. Using a sharp knife cut the track on the underside going to pins 1 and 2 of U8 (74LS139) and put in links on the underside between pin 1 of U8 and adjacent ground track and between pin 2 of U8 and the adjacent ground track. This alters the address decoding to the RAM in U3 to A15 only. Cut out and desolder the pins of U3 and U4, the 8K RAMs. It is better to destroy the ICs than the printed circuit board !!! Cut the thick track on the underside of the board going to pin 26 of U3. Solder the 32K RAM in place of U3 or solder in a good quality 28 pin IC socket (e.g. Turned pin). Link pin 26 of U3 (RAM) to pin 26 of U2 (EPROM socket) and link pin 1 of U3 (RAM) to pin 27 of U2 (EPROM socket). This adds the two extra address lines needed by the bigger RAM. Now insert the 32K RAM if a socket was used.

Replace the PK-87 EPROM in its socket and check the board carefully for any shorts, bent pins or solder splatters.

Refer to Figure 1 below of the top of board foil pattern and link them up as shown below:-

EXT. MODEM

5 pin DIN 25 D connector

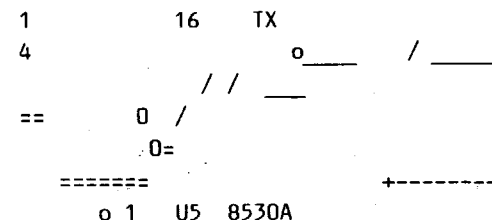


FIG. 1

On the underside of the board link the through hole on the track that has just been cut to pin 11 of U20, see Fig 2.

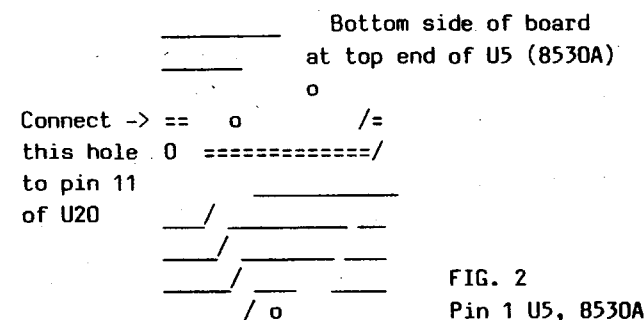


FIG. 2

Pin 1 U5, 8530A

A small change on the PK-88 compared to the PK-87 is that pin 1 of U14 (7910) is taken to Vcc, this is done by linking pin 1 and pin 2 of U14.

If the PK-87 has a 4.9152 MHz crystal put in the new EPROM and replace the board in the cabinet. Apply power and the unit should enter the auto baud routine and the unit can be started as from cold. If all is satisfactory turn the link block on JP 1 so it links the pins, remove power and reassemble the cabinet. (If the clock runs very fast and the timings are odd you have the wrong version of the EPROM where the clock interrupt rate needs halving. You can either get a different EPROM or put in a 74HCT4020 and do the modification as per the NOTE at beginning.

For older models of the PK-87 the clock speed has now to be upgraded. Remove C5 (680pF) and discard it, then desolder C3 (330pF) and put it in the position marked C5. Put the 220pF capacitor in the position marked C3 and change the crystal to the 4.9152MHz crystal. On the top side of the board between U5 and U14 (8530A and 7910) a thin track passes under R12, cut this track, see Fig 3.

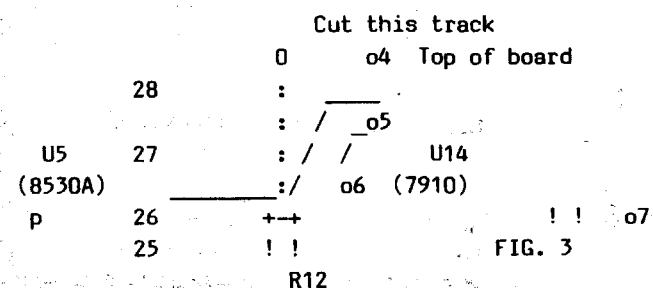


FIG. 3

On the underside of the board link pin 24 of U14 (7910) to pin 9 of U12 (4040). This puts 4.9152 MHz divided by 2 to the modem chip so it remains at 2.4575 MHz while the rest runs at twice the speed.

If you have not made the modifications needed on the old PK-87 to the audio output make them now. They are to turn C24 round so the positive is to the RADIO connector and if a

(continued on page 19)

Yellow Thunder Amateur Radio Club



K90DK
WB9FDZ

Harry Westlund, K9EHJ,
Secretary
720 Jefferson Street
Baraboo, WI 53913

The next meeting of the Yellow Thunder Amateur Radio Club will be held on Monday, May 15, 1989 in room 28B of the Baraboo Civic Center.

Due to the absence of a quorum, there was no business conducted during the Yellow Thunder ARC meeting of April 13, 1989.

The members and guests present held an open session with discussion among themselves.

YTARC BIRTHDAY

| | | |
|-------------------------|-----|----|
| Harry W. Westlund K9EHJ | May | 7 |
| Bob Johnson WB9EIW | May | 11 |
| Peter Sweeney WD9JIB | May | 13 |
| Steve Schwoegler WB9RNL | May | 29 |
| Phil Anderson W9TP | May | 31 |

SENTENCE SERMON

In those vernal seasons of the year, when the air is calm and pleasant, it were an injury and a sullenness against Nature not to go out and see her riches, and partake in her rejoicing with heaven and earth.

--Washington Irving

WNA - WSSN (continued from page 4)
and could pick up any commercial AM radio station in Milwaukee. So much for fame and glory.

Hope to see you and many others at the spring eyeball meeting of the WNA at Stevens Point.
73, Lee, N9BDL, NM

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Wisconsin Intrastate Net - Early (WIN/E)

Larry Guthu, WB9ICH, Net Manager
706 West Jennings
New London, WI 54961

Hi gang!

Boy, where has the time gone? It seems like I just wrote these lines only a few weeks ago.

Well, as most of you know, I have not been too active on the net as of late because of work, but I can see by the net stats compared to a year ago that things are running pretty well. Looking at the net stats compared to a year ago, we are holding about steady, so no great gains or losses there.

Over the past couple of months, we have picked up a couple of new people, those being N9IAL, Bob, in Waupaca, and AD9X, Jim, in the Madison area. Both have been active on WIN before but had to drop out for one reason or another, so I would like to welcome them both back, and hope that they will be with us for a long time to come.

I hate to keep bringing this up, but we could still use some help on liaison to 9RN; we have only a couple people going more often than they should have to go; if you can help, please give us a hand. I also have a couple of NCS spots open, if anyone is interested in being a net control. If you want to help out in any of these areas, just get ahold of me or send me a radiogram, and we'll get you set up.

The past couple of weeks, you may have noticed that signals have had a little warble on them at times because of the aurora, but that has not stopped us from passing traffic or checking in to get traffic.

Here are the top 5 checkins for March: N9BDL 29; W9CBE 24; W9YCV W9NGP 23; W9KLN 22; K9GDF 18. I am sorry, but I don't have a list made for the top 10 checkins for the quarter, but next time we'll have one covering the six month period.

Other than that, I guess there is not much else to write about. Until next time, keep that WINning spirit, and I hope to see some of you here and there at swapfests or whatever.

73, Larry, WB9ICH

FOR SALE: Hammerlund 170 Ham Receiver, \$120.00. In mint condition. Ed. Malinowski, Rte. 1, box 132, Century Rd., Loyal, WI 54446.

WANTED TO BUY: Manual for a FRG-7 Yeasu-Munsen receiver. Photocopy would be ok. Ed. Malinowski, Rte. 1, box 132, Century Rd., Loyal, WI 54446.

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Wisconsin Intrastate Net - Late (WIN/L)

Ed Rice, W9NGP, Net Manager
W126 Lang Road
Oconomowoc, WI 53066

As I am writing this, I am thinking about turning the clocks ahead before I retire tonight. That's a sure sign of Spring. Of course, by the time you read this, many of you will have mowed the lawn a couple of times already!

The Late WIN is growing slowly but steadily. Here are some comparisons with the first quarter of 1988:

| | 1988 | 1989 |
|-----|------|------|
| QNI | 388 | 523 |
| QTC | 147 | 203 |
| QSP | 106 | 131 |
| AVE | 72% | 65% |

These are not bad totals, when you consider that, being at the end of the day, we get all the traffic that nobody else could handle.

W9CXY is the leader in times serving as 9RN, with a total of 18 for the quarter.

W9YCV has the most QNI with 46.

I have made a new roster of the regular participants in the WIN/L which is available for an SASE.

73, Ed

WAPR - UPGRADE (continued from page 18)

TL082C is used as the opamp, to put in series with the audio output from it to the RADIO connector, a 100 ohm resistor to stop spurious signals appearing on the microphone line.

The PK-88 EPROM should now be inserted in the socket and the board should be checked for any defects such as shorts, solder splashes or bent pins. The board can now be connected up and tested. If all is alright it will enter the auto baud routine and can be started as from cold. If there are no problems turn the link block on JP1 so it links the pins. Remove power and reassemble the unit.

If you have problems with resets due to spikes on the 12 volt line, such as when you turn on a radio on the same power supply, either put a high value resistor in series with D1 or just cut a leg of D1.

You should now have a PK-88 in false colours. If you have problems with overheating or unreliable operation I suggest you replace the Z8400A with a 6 MHz CMOS Z80 processor as the clock is beyond the rated speed of the Z8400A, the same can be done for the 8530A. With a CMOS EPROM and both CMOS Z80 and CMOS SCC the current consumption can be reduced to below 250 milliamps.

--Adrian - GM1FML

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